The American Artisan
And Hardware Record

Vol. 47—No. 16. CHICAGO, APRIL 16, 1904. $2.00 per Year.

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The "COLUMBUS"

EMERY WHEEL DRESSER

Does the work FASTER and BETTER than any other. The device is the result of long experience in our own shops.

Handle with 6 Cutters sent by express on receipt of $1.00.

COLUMBUS BOLT WORKS, - Columbus, Ohio.

A postal card will bring our General Catalog.

PURE ASPHALT ROOFING

Never Dries Out or Cracks Our Tarred Ready Roofing, Slaters' Felt, Building Paper, Roofing Cements, Paints, Etc

WRITE US FOR PRICES

L. PERKINS & CO. 235 Lake St. CHICAGO

April Showers Bring Forth

many things besides May flowers—as rust and corrosion to an unprotected roof—increases and enlarges small leaks. Now's the time to prepare your roof for the rainy season—stop the small leaks and openings by using AMERICAN SEAL ELASTIC OIL CEMENT. This cement will stop the largest or smallest leak that may exist in any roof. Won't harden, thereby increasing its non-breakable qualities. Economical considering the difference in price and results of the High Priced plumber.

PRICES ON APPLICATION.

Wm. Connors Paint Mfg. Co., TROY, N. Y.

TINNERS FIND EMPLOYMENT

By advertising and using THE POWERS AUTOMATIC CHIMNEY TOPS

They make chimneys draw, give tinners employment making stocks, and give the dealers profit.

Sold by Hardware Jobbers and Dealers.

Made only by POWERS BROS. STREATOR, ILL.

This cut free to dealers.

NOTICE.

We have exceptional facilities for handling American products: Hardware, Sanitary, Heating and Ventilating Goods. Branches in England and continent. References furnished.

ADDRESS

EXHIBIT & TRADING CO.

Main Office, 155 Duke St.

LIVERPOOL, - ENGLAND

The Atlas Bolt & Screw Co.

CLEVELAND, O.

Stove Bolts, Rivets, Rods

And Kindred Articles

Catalogue and Prices on application

Crying to do business without advertising is like winking at a girl in the dark; you know what you are doing but nobody else does.

Black Diamond Files and Rasps

PERFECT—ALWAYS

TWELVE MEDALS AWARDED

AT INTERNATIONAL EXPOSITIONS

G. & H. BARNETT CO.

Black Diamond File Works, PHILADELPHIA

"TRIUMPH" CHAIN HAS TWICE THE STRENGTH OF WELDED.

SEND FOR FREE SAMPLES, TABLE OF TESTS AND ASK QUESTIONS.

THE BRIDGEPORT CHAIN CO., BRIDGEPORT, CONN.

OVER TEN MILES OF CHAIN PER DAY. WE LEAD.

Fire pots 12 in., 14 in., 16 in., all are double heaters—Lift Off Nickel.

An "Iron Grip" is more Valuable than a "Golden Touch."

The making of a stove that is universally satisfactory, is not a matter of chance—it is the result of sticking to it.

THE DEVELOPMENT OF

The Cinderella Air Tight

Is a Triumph in Stove Construction.
IT IS THE COMPLETE STOVE.

BURNS ANY KIND OF COAL—IS PERFECTLY CLEAN—EASILY CONTROLLED—HEATS MORE THAN AN OAK STOVE—COSTS LESS THAN A BASE BURNER : : : :

It is a Stove that Satisfies Everybody

"If on Earth be an Eden of bliss,
It is this, it is this, it is this."

Ask Prices—Order Samples—Secure Its Sale

"It is good ethics to sell good goods."

PITTSBURGH STOVE & RANGE CO.
PITTSBURGH, - - - PA.

THE END OF IT
But Not All of It.

The cut does not show
Patented Ventilated Fire Box.
Patented Balance Oven Door.
Patented Nickel Kicker, (operated with the foot)
Patented Reliable Rolling Damper.

All these are

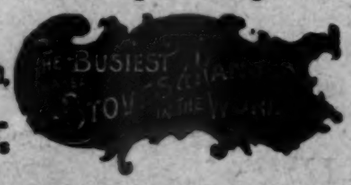
DISTINCTIVE FEATURES

and there are many others, found on no other ranges.

Everything original, everything essential.
When talking **Models** you are talking Special Features. How is it when talking other ranges?

THE PORTSMOUTH STOVE & RANGE CO., Portsmouth, Ohio.

MORLEY BROS., SAGINAW, MICHIGAN, WHOLESALE AGENTS FOR MICHIGAN.



M
TRADE MARK

Moore's Stoves Always Please

Time and Temperature—The Clock and the Thermometer—Each is essential to the equipment of a modern kitchen. Both are necessary for best results in baking and the one quite as helpful as the other. MOORE'S RANGES have thermometers which give the most perfect satisfaction. The thousands already sold keep new business coming to

THE EASY LINE TO SELL

JOLIET STOVE WORKS,
JOLIET, ILLINOIS

HOLBROOK, MERRILL & STETSON, San Francisco and Los Angeles.

THE "ECLIPSE"

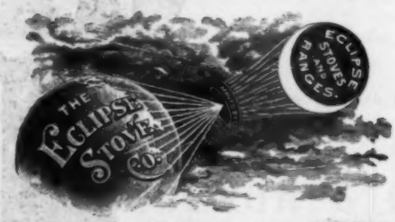
NEW, LOW-PRICED

OAK

A WINNER FOR 1904

Good materials, well mounted, nicely nickeled, three sizes.

WRITE FOR THE PRICES



THE ECLIPSE STOVE CO.

MANSFIELD, OHIO

THE CLERMONT OAK

The **Clermont Oak No. 160** series, is an Air Tight Oak Stove. Has an anti-buckling ring, and large feed door. Is a perfect fire keeper. Has nickel registers, handsome nickel bowl ring, nickel top ring, nickel wings on each side of fire door, nickel name-plate, and nickel swing top, and handsome Urn.

It is made in four sizes, Nos. 120, 140, 160 and 180. These stoves are well mounted by experienced mechanics.

Gem City Stove Co.

Dayton, Ohio.

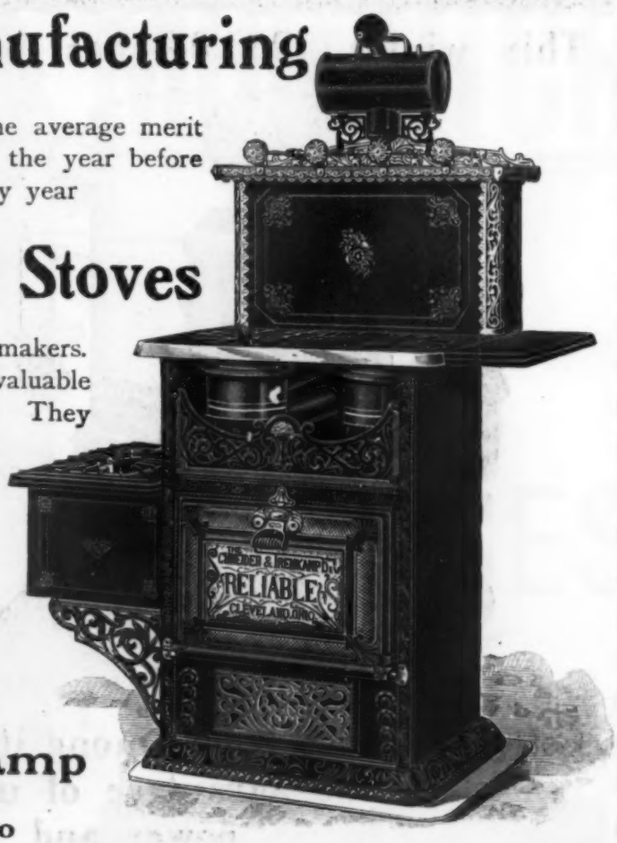
Vapor Stove Manufacturing

is a progressive art. Every year the average merit of these stoves is better than it was the year before and we are proud of the fact that every year

Reliable Vapor Stoves

are better than those of competing makers. Our 1904 Reliables embody every valuable feature in vapor stove construction. They have special features that are possessed by no other stoves, and they will be even better money makers for the dealer than they have been in the past.

"RELIABLE" stoves are constructea according to the safety requirements of the National Board of Underwriters and are on their list of "Permitted Stoves."



Schneider & Trenkamp
Division American Stove Co.
Cleveland, - - - Ohio

ALL SOLAR
STEEL RANGES

Are **Guaranteed** by us to please both dealer and consumer.

The bodies are made of genuine Wellsville body steel, the design is new and original, and has all the modern improvements. In fact as its name signifies it is "Perfect."

Perfect in Design, Perfect in Construction, Perfect in Operation.

We make only first class goods. Write for prices on our complete Solar line.

Mississippi Valley Stove Works, FULTON ILLINOIS

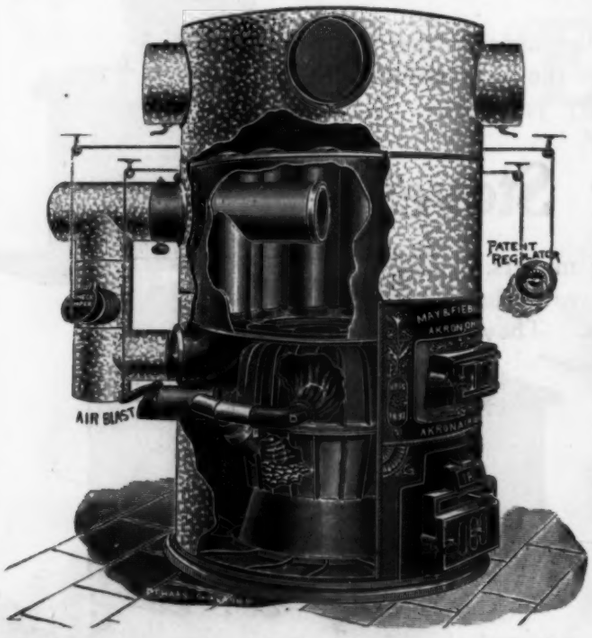
PRIZE STEEL RANGES

Foster

Makes a range that is without a peer. Everything about this new and improved costs no more than ordinary ranges. Order a sample and be convinced. *Send for printed matter.*

The Foster Stove Co.
IRONTON, OHIO

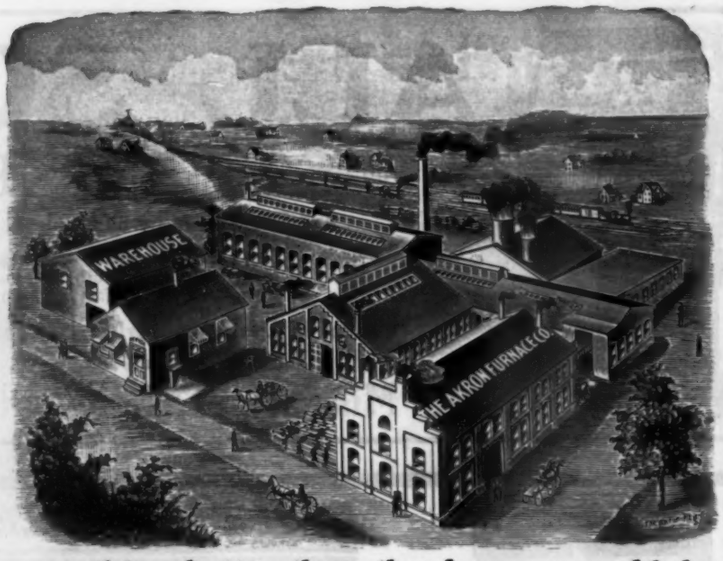
This winter, 1903-04, has been favorable for the



Akron Air Blast Furnace.

Letters received from among its many thousand users show the advantage of using a furnace of power and merit.

Factory Capacity 5,000 Furnaces A Year.



Dealers looking for something better than the furnaces sold by them are respectfully invited to write us.

Our Retail Akron City Sales for 1903 were 276 of our Furnaces.

MAY & FIEBEGER,
AKRON, O.

Belleville Stove Works Western Sales Agent, Kansas City, Mo.

MONARCH

AIR BLAST FURNACES

For Soft Coal

NIAGARA

FURNACES

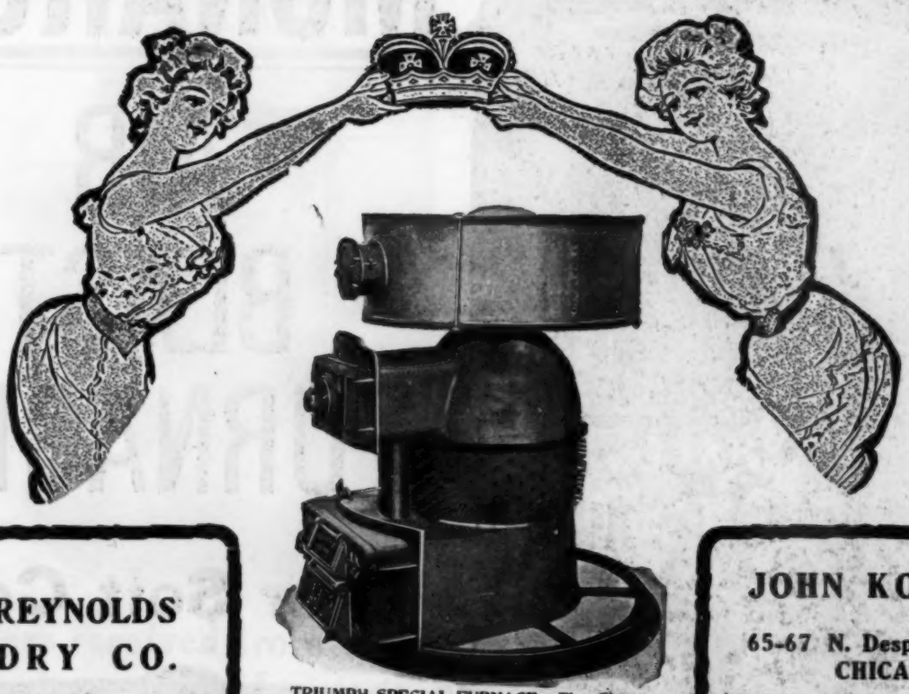
For Hard Coal and Coke

Our 1904 Catalogue shows our complete line of **Furnaces and Registers.**

The Forest City Foundry & Mfg. Co.

CLEVELAND, O.

TRIUMPH FURNACES WEAR THE CROWN



TRIUMPH SPECIAL FURNACE. Five Sizes. Hard Coal or Coke. Portable or Brick Set.

CRAIG-REYNOLDS FOUNDRY CO.
DAYTON, OHIO

JOHN KONTNY
65-67 N. Desplaines St.
CHICAGO
WESTERN AGENT

1904

The Old Reliable

MANUFACTURERS OF
UP-TO-DATE HEATERS

Steam, Hot Water and Hot Air

We are making large additions to our works and output capacity, to meet the rapidly increasing demands of our trade.

The BOYNTON FURNACE COMPANY
NEW YORK CHICAGO

1904

Showing Patent Positive Cap Attachment Over Flues.

The KELSEY

Warm Air GENERATOR

is so unlike and has so many real advantages over any other heater and so many strong talking points, that it is easy to convince the skeptical purchaser of its efficiency and economical features.

Are you selling a furnace so nearly like that of your competitor that the purchaser can see no difference in them and lets the contract to the lowest bidder?

24,000 KELSEYS SOLD

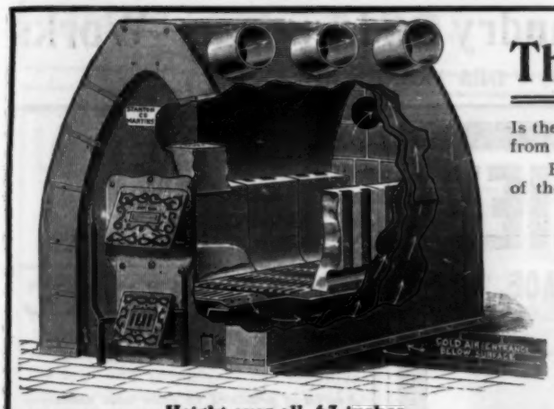
and through the recommendation of the users they are becoming better known every year.

The Kelsey Agency is a profitable one. Some dealer in your town is sure to secure it soon.

KELSEY HEATING CO.
Makers, Syracuse, N. Y.
NEW YORK OFFICE: 156 FIFTH AVENUE

COOK & VAN EVERA CO.
38 E. Lake St., Chicago.
WESTERN SELLING AGENTS

JAS. SMART MFG. CO., Ltd., Brockville, Ont., Sole Makers for Canada



Height over all, 63 inches

The Stanton Seamless Heater

Is the only heater made that is absolutely proof against leakage of gas from the fire-box into the warm-air pipes, and that will remain so.

Rapidly increasing in favor among progressive dealers. What one of them says:

THE STANTON HEATER CO., Martin's Ferry, Ohio.

Gentlemen: I have had over thirty years' practical experience in warm-air heating, but I most sincerely believe, after handling the Stanton Seamless for five years and installing about 120, with the splendid success I have had, that it is the only furnace that will stand the firing and remain smoke, gas and dust-tight. In keeping up a steady flow of warm-air during the whole night, the Stanton cannot be excelled. I also say that when the Stanton is properly fired it will use less fuel than most any other make of furnace.

GEO. W. HOWELL, 310 W. Third St., Greensburg, Pa.

Write for catalog and secure exclusive territory.

THE STANTON HEATER CO., Martin's Ferry, O.

WEIR ALL STEEL GAS AND SOOT CONSUMING FURNACE.

THE HEAVIEST STEEL FURNACE MADE.

Absolutely Gas and Dust Tight. A Great Heat-Producer, but a Fuel Saver.

MANUFACTURED BY

THE MEYER FURNACE CO.
1300-1304 S. Washington St.,
Send for Catalogue. **PEORIA, ILLS.**

"The HANDY FURNACE PIPE"

Made with a View of Being Safe.

The saving of labor in putting it up really makes it the cheapest hot air pipe on the market.

MANUFACTURED BY

F. MEYER & BRO. CO.
Send for Catalogue. **PEORIA, ILLS.**

IN A CLASS OF ITS OWN

Stands the

MUELLER
DOUBLE RADIATOR
ALL CAST FURNACE

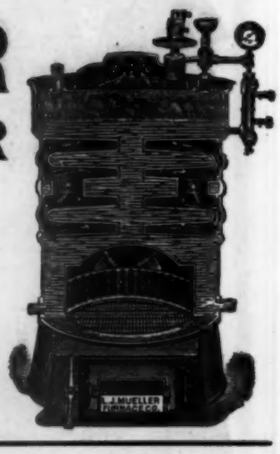
Has Greater Heating Surface, Greater Efficiency, Greater Durability than any other furnace made.

Write for Catalogue and Prices.

L. J. MUELLER FURNACE CO.

ESTABLISHED 1857

191 REED STREET : : : MILWAUKEE, WIS.



Green's Furnaces

Up to date. Modern Construction.

Green's Low Down for Soft Coal.
Green's Crescent for Hard Coal.
Green's Wood Furnace for Wood.
Special Furnaces for all Fuels.

Catalogue tells all about them

Green Foundry and Furnace Works

DES MOINES, IOWA.

MONCRIEF

WARM AIR FURNACE.

Specialties:
- All Cast Iron.
- Moncrief Duplex Grate.
- Large Radiating Surface.
- Double Fire Pot.
- Large Grate Surface.
- Top Return Flue.
- Simplicity, Durability, Economy.
- Cleanliness in Use.

HENRY & SCHEIBLE CO.

6-8-10 Long St. Cleveland, O.

The dealer who has on his floor a

Phœnix Furnace

makes no mistake. His trade is sure and continuous — undoubtedly the best **HOT AIR FURNACE** in the world and the greatest fuel saver on the market.

C. F. PALMER,

PHŒNIX IRON WORKS. UTICA, N. Y.

SOME MORE BOOKS

A series of practical volumes with numerous illustrations.

"*Practical Draughtsman's Work*," 226 illustrations. This one contains many points relative to this line of work. $1.00 prepaid.

"*Practical Gas Fitting*," 120 illustrations. This one contains all practical points connected with gas fitting of every description. $1.00 prepaid.

"*Practical Stair Case Joinery*," 215 illustrations. This one contains many beneficial points for the practical workman as well as good hints for the amateur. $1.00 prepaid.

"*Practical Metal Plate Work*," 247 illustrations. This one contains numerous engravings and diagrams, and is unusually clear and true. $1.00 prepaid.

Any of these books and all others of any line can be secured upon receipt of price, prepaid, by addressing

DANIEL STERN

69 Dearborn St., Chicago, Ill.

COMBINATION WARM AIR AND HOT WATER HEATER.

GILT EDGE FURNACES

GILT EDGE in construction.
GILT EDGE in up-to-dateness.
GILT EDGE in durability.
GILT EDGE in economizing fuel.
GILT EDGE in ease of operation.
GILT EDGE as money makers for the dealer.

SEND FOR CATALOGUE

R. J. SCHWAB & SONS CO.
MILWAUKEE, WIS.

HERO FURNACES ARE THE BEST FOR A COLD CLIMATE

WRITE FOR CATALOG

CHAS. SMITH CO., : 101 Lake St., Chicago, Ill.

Locations for Industries

Erie Railroad Chicago to New York.

The Erie Railroad Company's Industrial Department has all the territory traversed by the railroad districted in relation to resources, adaptability, markets and advantages for manufacturing, and can advise with manufacturers in relation to the most suitable locations. The information furnished a manufacturer is reliable and has practical bearing on the nature of his particular industry.

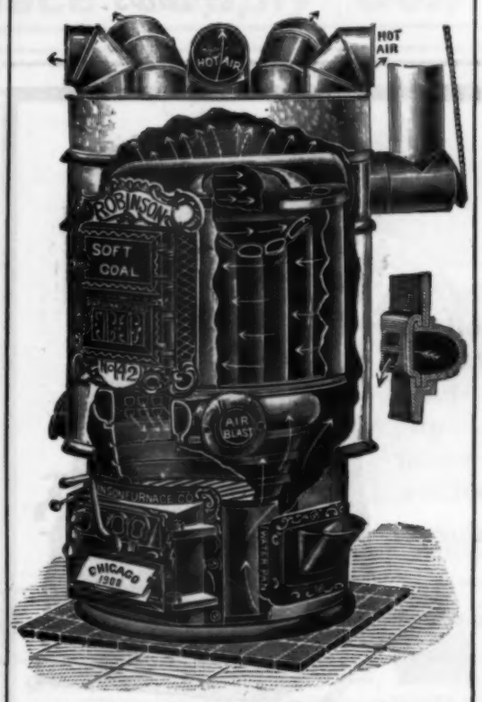
Vast deposits of anthracite and bituminous coal, oil, natural gas—fuel is the paramount factor in manufacturing—sewer pipe, fire and other clays, cement material, gypsum, building stone and numerous other resources exist on the line.

It is important in this age of modern facilities for manufacturers to locate where they can obtain side tracks so as to receive from and ship directly into cars at the factory. Information can be promptly furnished in this connecton about every point on the system between New York and Chicago.

The undersigned will be pleased to furnish full information to manufacturers and local parties contemplating the establishment of new industries.

Address, **LUIS JACKSON,**
Industrial Commissioner
Erie Railroad Company,
21 Cortlandt Street, New York.

SUPPLIED WITH ECLIPSE GRATES



Sectional View Showing Wrought Boiler Tubes in Radiator. A Full Revertible Flue Furnace.

FOR HARD COAL OR WOOD

The Robinson Tubular Furnaces

are constructed on principles that have been tested and proven correct, and with one aim in view, i. e., *to give the greatest amount of heat from the smallest amount of fuel.* It will thoroughly warm a house with a reasonable amount of fuel and give satisfaction to the user.

Write for Catalogue.

Robinson Furnace Co.
105 Lake St., CHICAGO

Emperor Furnaces
FOR WOOD.

Simple, Safe, Durable. Economical in Fuel.

The Best and Cheapest Line of Wood Furnaces . . .
Furnished for either Brick or Galvanized Iron Casing.

SEND FOR CATALOGUE.

Bergstrom Bros. Co.

NEENAH, WIS.

Royal Heaters.
MANUFACTURED BY THE
HART & CROUSE CO.
UTICA, N.Y.

ALL THE LEADING LINES OF
STEAM, HOT WATER & HOT AIR,
FOR HEATING ALL CLASSES OF BUILDING.

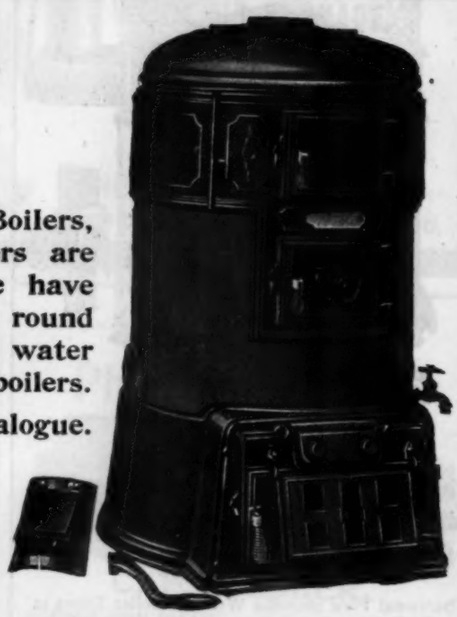
235 WATER ST. N.Y. COLUMBUS, O. BRANCHES. 29 LAKE ST. CHICAGO. ST. LOUIS.

HEAT LIGHT FOR THE
HOME
STORE
HOTEL
SCHOOL
CHURCH
OFFICE
COLLEGE
THEATRE
FACTORY
VILLAGE

INFORMATION FREE
SEND FOR IT.

DETROIT HEATING AND LIGHTING CO.
DETROIT MICH.

Floral City



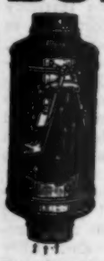
Hot Water Boilers, Steam Boilers are leaders. We have a full line of round and sectional water and steam boilers.

Write us for catalogue.

Monroe Foundry & Furnace Co.

Monroe, Mich.

BURTON'S



FUEL ECONOMIZER

Attached to a stove pipe saves more fuel and radiates more heat than any other stove pipe attachment

AN EASY SELLER.

Assertions Backed by Guarantee.

The W. J. BURTON CO., Detroit, Mich.

BURT HOSTERMAN,
Marshfield, Wis., writes:

"I do not think any hardware man has any business to start a hardware store without your paper."

DON'T FOR THE PAY
BLACK KID
STOVE POLISH
IF NOT THE BEST YOU EVER USED
PUT UP IN 5-lb. CANS
NICKEL PLATE STOVE POLISH CO. MANUFACTURERS, CHICAGO
PRICE, 65c PER CAN

See Our Cats.

No. 1 Hardware
No. 2 Registers
No. 3 Hay Tools
No. 4 Wire Workers' Goods
No. 5 Door Hangers
No. 6 Malleables

Floor Registers
Side Wall Registers
Stove Pipe Registers
Ash Pit Doors
Cylinder Rings
& Furnace Goods
See Cat. No. 2

STOWELL MFG. & FDY. CO. SO. MILWAUKEE, WIS.

FURNACES. PIPE ELBOWS REGISTERS & SUPPLIES
Write For Catalog.
Chicago Furnace Supply Co., Chicago.

Overton Adjustable Stovepipe

Requires no cutting; can be adjusted instantly to any desired length; enables anyone to set up a stove without difficulty; is simple; is effective; is inexpensive; is non-collapsible; is indestructible; saves time, saves labor; saves money, and saves patience and temper. Dunlap Mfg. Co., Dunlap, Ia.

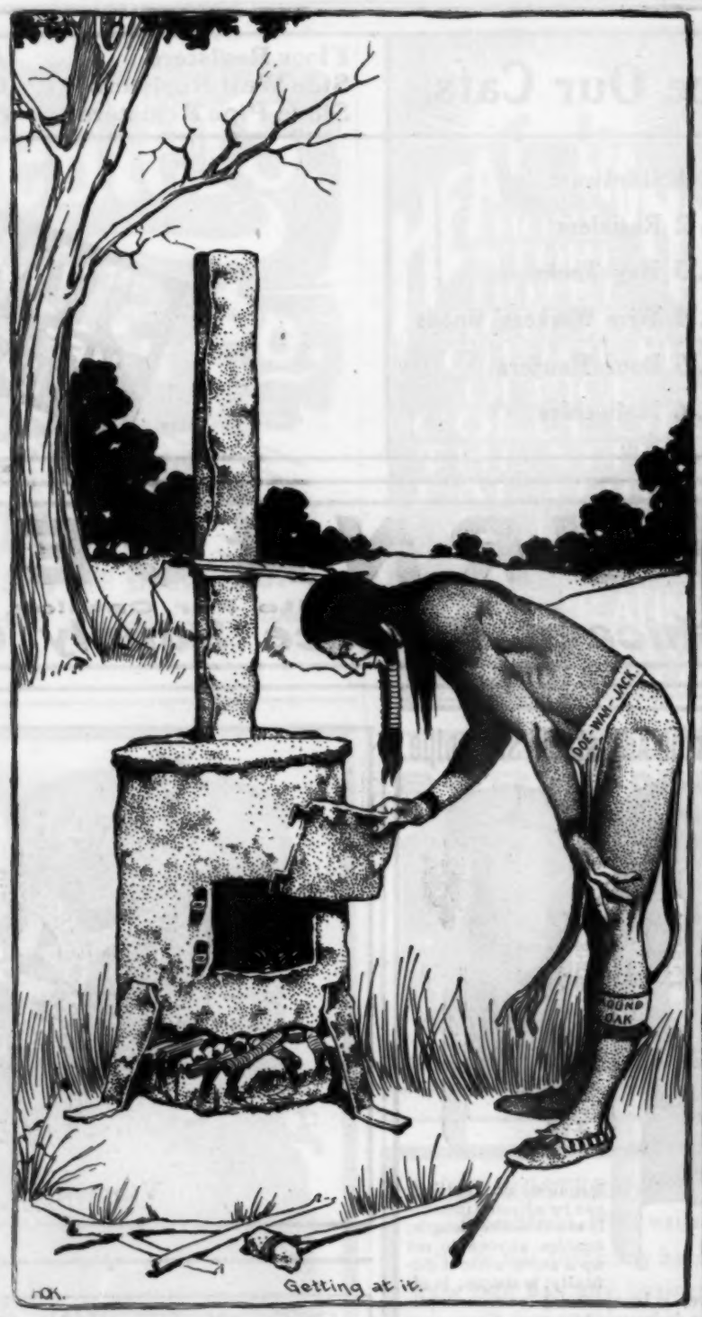
STAR SHOVELS SPADES AND SCOOPS WARRANTED
STAR SHOVEL & RANGE CO. VINCENNES, IND.
Vincennes, - Indiana.

GEO. W. BROWN, Jr., Hillsboro, Ill., writes:
"You may kindly discontinue our WANTED TINNER ad. that you have so kindly carried for us the past three issues. I have received replies from Vermont to Dakota and think that we have secured a good man."

ROUND OAK
STANDARD of AMERICA

We have succeeded every year, for several years past in convincing a few Furnace Dealers that there is more money gain, to say nothing of satisfaction, in pushing the sale of the good Round Oak Furnace, than in handling a cheap one and making price — ever price— get the business.
People really do not care so much about the extra cost of the furnace of quality, if *they know*.
We are prepared to refer, when requested, any furnace dealer who wishes to place his furnace business on a better basis to customers of ours who have been "thro the mill."
It's the strongest evidence that we can dig up.

Write us any time.
No harm to look into it.



Estate of

P. D. BECKWITH

Fred E. Lee, Manager

Dowagiac Mich.

MAKERS OF GOOD GOODS ONLY

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES, THEIR POSSESSIONS, AND CANADA, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES EXCEPT CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, communications and remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.
THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, APRIL 16, 1904.

THE AMERICAN ARTISAN has struck off a limited number of proofs of the half-tone portrait of the conferees of the Stove Founders' National Defense Association and the Iron Molders' Union, which appeared in our April 2nd issue. These are printed on enameled paper and are mailed in tubes. We will be glad to furnish them to stove manufacturers or others, free of charge, as long as the supply holds out.

WHILE the next decade will show a wonderful development of the resources of Mexico, the following warning of Modern Mexico should be remembered:

"Mexican labor is not always cheap; there are mines in Mexico that do not pay dividends; rubber trees will not grow on the cold plateaus, and there are sections of the country that have had droughts. There exist also unscrupulous people who are willing to paint Mexico as a land of milk and honey for their own selfish ends. Every man who is brought to Mexico under a misapprehension as to its resources and the possibilities for profitable investment that exist for him eventually harms the republic more than he is personally injured. The opportunities for agricultural and industrial investment and trade expansion in Mexico are many and varied in character, but the truth should be frankly told about these openings. There are many chances for the investment of large capital, comparatively few for the man of small means, and no room at all for the poor man. There are plenty of poor people already in Mexico. The American laborer cannot compete in wages or the standard of living with the native peon."

DR. DAVID T. DAY of the United States Geological Survey in a recent article on tin deposits in South Carolina says many lodes of tin ore recently found in North Carolina near the South Carolina border and in the neighborhood of Kings Mountain are of the same nature as those known for many years, that is, hard pegmatite (coarse granite), containing irregularly distributed masses of tin ore. What percentage any of these lodes will yield is not yet known, and the proposition of mining these lodes is by no means so fascinating as simply washing the tin ore from a clay bank, as in the deposit near Gaffney City. There is every reason to suppose that this tin mine near Gaffney City will yield paying quantities of tin for at least several years, and plans are being developed for working it far more cheaply than heretofore, although the present workings are extremely profitable. As to the likelihood of finding other decomposed veins from which the tin can be washed with water, it is difficult to make any reasonable prophecy, but considering the large number of lodes of tin ore which have lately been uncovered, it would seem that the prospects of finding other decomposed lodes is considerable.

COAL is applied to the generation of heat and light. Heat is derived from the burning of the coal, and is the result of the chemical combination of the oxygen of the air with the carbon and hydrogen of the coal. Heat is stored up in all coal in greater or less quantities, according to the chemical combination of the coal, and by the process of combustion it is evolved, when the heat energy of the coal may be converted into work. Light is generated from coal by the manufacture of gas, which is conveyed for illumination in our streets and houses. The chemical combination and combustibility of coal varies so greatly that the different qualities are best adapted to different purposes Some varieties are easily ignited and burn quickly, whilst others are difficult to ignite, and, burning slowly, give off intense heat. Some coals expand or open out on burning, and others fuse and cake together when heated. The total heat and energy which is actually capable of being developed from coal is never even remotely approached in actual practice, some authorities going so far as to say that in many cases more than 90 per cent of the actual heat in the coal is lost by the method of application.

"THE imports of the grand divisions and principal countries of the world and the share thereof supplied by the United States" is the title of a table just presented by the Department of Commerce, through its Bureau of Statistics. It shows, as the title indicates, the total imports of each of the principal countries of the world, the amount of those imports drawn from the United States, and the percentage our products form of the total imports. The statement shows that of the $8,141,054,000 worth of merchandise imported by Europe in 1902 the United States supplied $1,211,356,000, or 14.88 per cent of the total. North America, other than the United States, imported merchandise to the value of $410,773,000, of which the United States supplied $215,866,000, or 52.55 per cent. South America imported $349,691,000, of which $43,878,000, or 12.55 per cent, was from the United States. Asia's imports were $965,550,000, of which $50,167,000, or 5.2 per cent, was from the United States. Africa's imports were $436,256,000, of which $24,333,000, or 5.58 per cent, was from the United States.

The imports of Oceania were $292,107,000, of which $34,855,000, or 11.93 per cent, was drawn from the United States.

THE Plasterers' Union of New York City have passed a ruling governing the conduct of foremen as follows:

"Any foreman insisting on rushing the men or bringing about a condition of affairs that would be detrimental to the members of this society, or failing to do his duty as herein prescribed, on charges being preferred against him the delegate shall suspend him, and he shall remain suspended until tried on said charges. Should he be found guilty he shall for the first offense be fined the sum of $50, or he shall not be recognized as a foreman for a term of three years, at the option of this society, and for the second offense he shall be fined not less than $50, and never again be recognized as a foreman by this society."

It would have added greatly to the interest of this document if a definition had been given of the specific nature of the offense of rushing. We presume it means crowding the men to do a full day's work and earn their wages. It has been strenuously denied that the principle of "ca' canny" obtained in this country, or that the American mechanic experienced other than pleasure in maintaining a pace with which his congeners in other countries would find difficulty in keeping up. It would appear as if, in the case of the plasterers, there were some mistake about this contention.

THE United States is the largest customer of Japan. The value of exports from Japan to her most important customers in 1902 was: To Germany, 4,737,000 yen (yen equals 49.8 cents); Italy, 13,287,000 yen; British India, 13,337,000 yen; Great Britain, 17,346,000 yen; Hongkong, 25,876,000 yen; France, 27,283,000 yen; China, 46,838,000 yen, and to the United States, 80,233,000 yen. Thus the United States takes as much of the products of Japan as all of Europe and nearly twice as much as China, Japan's second largest customer.

In imports the United States stood second in 1902, and at the end of 1903 was but $1,227,000 below Great Britain, which still holds the lead. For 1902, the latest year for which the import figures of Japan are available with reference to all countries, the imports from leading countries, stated in the order of magnitude, were: From British India, 50,977,000 yen; from Great Britain, 50,364,000 yen; from the United States, 48,653,000 yen; China, 40,591,000 yen; Germany, 25,813,000 yen, and from France, 4,746,000 yen. In 1903 the imports from the four principal countries were: From India, 70,095,000 yen; from Great Britain, 48,737,000 yen; from the United States, 46,273,000 yen, and from China, 45,458,000 yen.

THE United States Department of Agriculture has just issued a bulletin on farm labor, giving the results of twelve statistical investigations. Returns were received from over 23,000 persons for the investigation of 1902, and the author, Professor Blodgett, has evidently studied them carefully; but he remarks that "the extreme variety of conditions * * * is very perplexing in making averages." The census shows that there were 2,044,761 hired agricultural laborers in the country, working under all sorts of conditions as to wages, time of service, etc. The first noteworthy fact is that wages have advanced materially since the first investigation made under prevailing money standards. In 1882 the average wage, without board, was $18.94, in 1892 it was $18.60 and in 1902 it was $22.14. A table will show these facts more clearly, taking the investigations of 1882, 1892 and 1902 in each case:

AVERAGE WAGES OF FARM LABOR.

	1902.	1892.	1882.
Without board, per month	$22.14	$18.60	$18.94
With board, per month	16.40	12.54	12.41
Harvest wages, without board, per day	1.53	1.30	1.48
Same, with board	1.34	1.02	1.15
Per day by year without board	1.13	.92	.93
Same, with board	.89	.68	.67
Difference in wages without and with board, per month	5.74	6.06	6.53
Difference per day, by year	.24	.24	.29

"COMMERCIAL JAPAN IN 1904" is the title of a monograph just issued by the Department of Commerce and Labor through its Bureau of Statistics. It shows that the trade relations between the United States and Japan in recent years have grown with greater rapidity than between Japan and any other nation.

In 1881 the imports from the United States formed less than 6 per cent of the total importations into Japan, while in 1902 they formed nearly 18 per cent of the total importations. Meantime Great Britain's share in the imports of Japan fell from 52 per cent to 18 per cent in 1902. The United States is also Japan's largest customer, by reason of the fact that the chief export products of Japan are articles required by the manufacturers of the United States, and which can not be produced in this country. The total exports from Japan in 1900 amounted to 204,429,994 yen (yen is equal to 51 cents, United States currency) in value, and of this amount 52,566,395 yen went to the United States, 39,177,455 to Hongkong, 31,871,576 to China, 19,150,423 to France, and 11,262,997 to the United Kingdom; the total exports of 1902 amounted to 258,303,065 yen, of which 80,232,805 yen in value went to the United States, 25,876,059 to Hongkong, 46,838,545 to China, 27,283,458 to France, and 17,346,149 to the United Kingdom.

The exports of Japan to the United States, as already indicated, are chiefly of articles which are not produced in this country, and in a majority of cases are those required by our manufacturers. Of the 80,232,805 yen in value exported to the United States in 1902, the value of 46,784,720 yen consisted of raw silk, 8,921,995 yen manufactures of silk, 9,124,085 yen of tea, 6,381,733 yen matting for floors, 577,888 yen rice, 1,516,401 yen chemicals, drugs, etc., while manufacturers of bamboo, lacquered ware, and other products peculiar to the Japanese have also figured largely in the list.

RANDOM SKETCHES

BY SIDNEY ARNOLD.

THE MAHRATTAS, most vindictive and savage of the Hindoo tribes, have a weapon of secret attack styled the *Baag-nouk*. This is a piece of strong, sharp curved steel attached to a strap stretching across the palm of the hand. The evil-minded Hindoo treacherously extends his hand as though to shake hands, as an act of friendship, and then suddenly slashes at his unsuspecting victim's throat.

The metallic baag-nouk is confined to Mahrattan palms, but metaphoric baag-nouks are no strangers in this land of the highest civilization.

Oily John Brisben Walker and other advocates of the Parcels Post are declaring that no one is as likely to be its beneficiary as the country store keeper.

Friendly hands are stretched out to retail merchants.

They are told that expressing is as antiquated as a method of distribution as the abacus is as a method of computation or the spinning wheel as a method of weaving.

The *ignus fatuus* of a flood of "commissions," the dealer will receive under the Parcels Post regime is dangled before his eyes.

That pride, which every true-hearted American feels in his country, is nauseously and falsely appealed to—it being ridiculously held that this glorious country is "behind" petty Austrian principalities because a system of distribution that works all right in a so-called country that you can gallop across in a few hours is not taken up by a country stretching across a great continent.

Happily the dealer is not deceived. The hand of the Parcels Post advocate is a shapely one, but its deadly baag-nouk is there.

The Parcels Post would be a body blow to merchants in every line—"a piece of strong, sharp, curved steel" inserted in their jugular vein. This can readily be proved by a glance at the following table of present and proposed postal rates:

	Present Rate.	New Rate.
1 ounce	$0.01	$0.01
3 ounces	.03	.01
6 ounces	.06	.02
9 ounces	.09	.03
12 ounces	.12	.04
1 pound	.16	.05
2 pounds	.32	.07
3 pounds	.48	.09
4 pounds	.64	.11
5 pounds	.80	.13
6 pounds	.96	.15
7 pounds	1.12	.17
8 pounds	1.28	.19
9 pounds	1.44	.21
10 pounds	1.60	.23
11 pounds	1.76	.25

These rates will cause a regular deluge of mail order packages and will whittle a sad slice off the margin against catalogue house competition allowed the dealer under present rates of transportation.

* * *

PHLEBOTOMY, or blood-letting, was the panacea for our grandfathers' rheumatism or our grandmothers' typhoid. The method of applying this remedy was by means of loathsome leeches, and in order that these blood-suckers might not too soon fall off sated and gorged, a second operation in phlebotomy by means of pin pricks was performed on the leeches themselves.

Bdellatomy was the name of this operation.

The chirurgeons, half-barber, half-doctor, knew that their pin-pricks on their living cuppers caused so much greater the loss of blood on the part of their patients.

In this they were wiser than many people who live in this more enlightened age and who class phlebotomy as on a par with the barbarian belief in the miraculous efficiency of bezoars found in the intestines of iguanas and other reptiles.

Our up-to-date politicians, manufacturers and others see various leeches sucking the life-blood of our great industries and acclaim bdellatomy or an incision on the leech as the infallible remedy therefor—unmindful of the fact that this makes the leeches' ability to drain the patients so much the greater.

The myopic labor leader harangues his following, declaring that the employer is a leech, sucking the red corpuscles from the arteries of labor and as a remedy he forces the latter to adopt the abominable "ca canny" system. When a firm have been computing on an average output of 60 brass gaskets per workman, let us say, and organized labor declares that no man shall make over 30, the manufacturer will naturally curtail his output in that line, coincidently of course curtailing his pay-roll, and labor will find itself so much the poorer.

The bucolic gudgeon who greedily swallows the catalogue house bait comes to look on the local retailer in the light of a blood-sucker and like the labor leader he tries bdellatomy as a remedy and sends his orders to the distant supply house.

As a result there is so much less money in circulation in his home town, so much less wealth to be taxed, so much smaller demand for "garden sass," and a resultant depreciation in the value of farm property The patient is always the sufferer from this false remedy for his ills.

Some manufacturers, some jobbers and some retailers occasionally get an idea that their competitors are leeches on their business and perform a little operation in bdellatomy by means of price cutting.

This leads to retaliation and a disorganized market, and the patient again suffers.

Happily the leech is no longer used as a cupper, but is left to live in dirty ditches as a barnacle on the backs of tortured turtles.

Then again, the employer is not a leech on labor, nor is the retailer a parasite on the farmer, nor are competitors barnacles on one's business.

Consequently not only is bdellatomy no remedy of various industrial and commercial ills, but the leech that short-sighted persons would perform it on is but a myth and a shadow.

* * *

THE WEHRLE CO., Newark, O., write: "You probably know we had a fire on the night of April 6th, and lost the contents of our office, excepting what was in the fireproof safe. This carried with it the last issue of your paper containing the interesting history of the National Defense."

It must be confessed with deep contrition that THE AMERICAN ARTISAN is not fireproof.

News Siftings

The Bridgeport Crucible Co., Bridgeport, Conn., are erecting a new building 35x128 feet in dimensions.

It is said that a new firm will shortly be started at Carthage, Mo., for the manufacture of a new down draft heating stove.

M. W. Baldwin and J. J. Herman are the incorporators of the Illinois Acetylene Gas Co., Portland, Me., capitalized at $50,000.

The Bridge & Beach Mfg. Co., St. Louis, Mo., have opened a branch at Seventeenth and Upshur Sts., Portland, Ore., with F. W. Isherwood in charge.

LeGrand Bourker, W. H. Greene and Clarence F. Walker are the incorporators of the Sanitation Coal Co., Jersey City, N. J., capitalized at $100,000, for the manufacture of "kolo" and other fuels.

The Blacklock Foundry, South Pittsburg, Tenn., send us one of their calendar blotters for April calling attention to their line of grates, sad irons, sinks, country and stove hollow ware, sugar kettles, cast iron shoe lasts and stands.

The Bridgeport Crucible Co., Bridgeport, Conn., are manufacturers of the Champion stove clay, which is claimed to be the only stove lining made of crucible materials, and also to be the best and most refractory lining made. It is packed in 2½-pound, 6-pound and 10-pound pasteboard boxes.

The Quality Stove & Range Co., Belleville, Ill., are meeting with marked success in the manufacture of steel ranges. They have 60 molders employed and have a total payroll of 90 people. Their steel ranges include the King Quality steel plate range, and the Peerless Quality steel plate range.

J. L. Klemme has refused to become a candidate for re-election to the Quincy, Ill., Board of Education, because the secretaryship of the Quincy Stove Mfg. Co. is making such a heavy demand on his time, which will be still further increased by the new branch which this firm have opened in Minneapolis.

Walter T. Hallowell has been promoted from representative of the Mt. Penn Stove Works, Reading, Pa., in Philadelphia territory to the management of their branch in that city, which is located at 111-113 North Second St., succeeding John R. McKnight, who has resigned. Mr. Hallowell will in turn be succeeded by W. A. Wackernagel.

The Detroit Heating & Lighting Co., Detroit, Mich., send us a circular calling attention to their combination gas machine and mixing regulator, and also their gas and electric fixtures. They guarantee their gas machine to be absolutely safe, durable and noiseless. It delivers gas of a uniform quality at all times automatically and without adjustment or attention of any kind.

John R. McKnight, who has been manager of the Philadelphia branch of the Mt. Penn Stove Works, Reading, Pa., since 1897, has resigned in order to succeed Harvey J. Fueller as secretary of the Eastern Pennsylvania Stove Association with headquarters at Reading, Pa. Mr. Fueller left this position in order to become sales manager for the Abram Cox Stove Co. of Philadelphia.

The Magee Furnace Co., 32-38 Union St., Boston, Mass., are sending out an announcement to the trade calling attention to the fact that they have a new all-cast furnace for wood or coal that is in a class by itself.

This firm are now shipping the Grand and Champion ranges in new dress with bow fronts and removable nickel. The Federal and Suffolk are new ranges of theirs.

The Gem City Stove Co., Dayton, O., manufacture a very complete line of stoves and ranges, including the Clermont Oak. This is an air-tight stove with anti-buckling ring and large feed door. It has nickel registers, handsome nickel bowl ring, nickel top ring, nickel wings on each side of fire door, nickel name plate, nickel swing top and handsome urn. It is made in four sizes, Nos. 120, 140, 160 and 180.

The trade will learn with deep regret of the death of P. J. Coppens, which occurred in Grand Rapids, Mich., on April 12th. Mr. Coppens was in the 60th year of his age, and was one of the best known stove men visiting the Michigan trade, as he had been traveling in that territory in the interests of the Chicago Stove Works, Chicago, for the past twenty years. Mr. Coppens was a veteran in the civil war, where he served with distinction in a number of naval engagements on the Mississippi river.

The Peerless Steel Range Works, 103-105 W. Lake St., Chicago, send us a circular calling attention to the All-Steel Peerless ranges, to whose manufacture they have devoted their entire attention for a decade. These ranges have malleable steel top plates, top plates ground and polished smooth and bright, malleable doors to ovens, closets, ash pit, feed doors and all other doors, large ovens, triple wall steel-asbestos-steel, lining flue beneath oven, door for removing grates, extra wood pan, steel oven rack, ventilated oven, protection plate eliminating any possible danger to the front oven plate, pouch feed, hot closet, double top braces, malleable never-break reservoir lids and malleable oven frames.

The J. L. Morris Stove Repair Co., 109-113 Washington street, Chicago, send us a catalogue showing their line of hardware dealers' specialties. These include various stove repairs, fire box bottom grates, fire box linings, for coal and wood, adjustable wood basket grades, adjustable wood bottom grates, adjustable wood feeders, closed adjustable front grates, open adjustable front grates, right and left ends, reversible end linings, adjustable break off backs, Chicago adjustable backs, salamander grates, fire place grates, etc. They carry a complete line of furnace repairs, also Gem square gas plates, stove casters, laundry stoves, catch basin top and covers, box drain grates, round alley covers, square alley covers, hexagon vault lights, cistern covers, coal hole covers, cast iron stove plates, foundation ventilators, Everlasting chimney top, horse drinking fountains, bases for stove stools, table horse drinking fountains, bases for store stools, table etc. The Windsor steel alloy furnaces are adapted for hard or soft coal, wood or coke.

WISH TO EXCHANGE CATALOGUES.

The Magee Furnace Co., 32-38 Union St., Boston, Mass., well known as manufacturers of high-grade cooking and heating apparatus, including stoves and furnaces, are anxious to secure a complete file of catalogues representing all the different manufacturers in their line, and they would be very glad to send their catalogue in exchange to any firm who will reciprocate.

STOVE PRICES WILL BE MAINTAINED.

The Western Association of Stove Manufacturers' held a largely attended meeting at the Auditorium Hotel, Chicago, on April 12th, and exhaustively discussed various matters pertaining to the interests of the stove trade. The question of the price to be made on stoves for the coming year was carefully considered in every phase, and it was decided that a conservative policy maintaining present prices was the best course to pursue.

BLACK KID STOVE POLISH.

Thirteen cents a pound is not a bed rock price for stove polish. In fact if a dealer fixes in his own mind the price he wants to pay for this commodity, be it ever so small, we will guarantee that he can get a pound of some black compound for his money. When it comes to operation and satisfaction there is as much difference in different stove polishes as there is between a $7.95 bicycle and a $75 chainless, or between a 98c sheet iron air tight and a high-grade base burner.

The Black Kid stove polish is made by the Nickel Plate Stove Polish Co., Chicago, and is sold at 65c for 5-lb. cans. The manufacturers don't want the dealer's money if it is not the best on the market.

The dealer is urged to try an application of the cheap kind of stove polish on one of his sample stoves and the Black Kid on another stove, same size, style, etc. The stove polished with the Black Kid will "look" to be worth at least $5 more than its mate.

CAUSTIC POTASH.

The Roberts Chemical Co., Niagara Falls, N. Y., claim to be the only manufacturers of high-grade caustic potash in this country.

Potash is now coming into extended use for removing grease from work to be plated or tinned as it has been found to be far superior to caustic soda and lyes, the advantages being that the work is cleaned better and quicker, and no manual work is required upon the work after leaving the cleaning bath than with either lyes or caustic soda. This firm are putting up their potash in 100, 200 and 800-lb. drums, also in the liquid form in carboys that run in the neighborhood of 170 lbs. each.

They now have upon their list some of the largest stove manufacturers in the United States, who are now using their potash exclusively, and in every case but one they have replaced a 20° Beaume solution of lye or soda by a 5° Beaume solution of their "High Grade Caustic Potash," in every case this strength of solution giving better results than the solution they had hitherto used as well as effecting them a saving.

The Metal Industry in a recent article on potash says:

Grease is the worst enemy of the plater, and it has been found that those who produce the best work are very careful in keeping the potash bath in proper condition and strength. It is, perhaps, unnecessary to dwell at length on the dangers of grease on work to be plated, as every plater knows that even the slightest touch with the hands imparts a film of grease on the article, invisible to the naked eye, but actually there to prevent the adherence of the plate to the base metal.

The potash dip is undoubtedly the most essential agent in a plating establishment. Yet how often is its proper condition ignored and no attention paid to the fact that it has done practically all the work that it will. The plater watches with extreme care the condition of his plating bath and allows the potash dip to take care of itself. The potash solution is just as fundamental, indeed, even more so, than the plating bath itself, for it is the first process in plating, and unless properly done further work avails nothing.

Work comes to the plater in all kinds of shape. Some is nearly free from grease, while others have considerable on the surface. That which comes from the machine shop is usually the worst, as every corner is smeared with thick grease or oil. Such work as this needs heroic treatment to remove this foreign matter, and the plater must be a man who uses judgment in such matters or he will not obtain good results.

For the removal of grease before plating there is no substance equal to potash. Caustic soda is much cheaper and is used to a considerable extent, but it is doubtful whether it is good policy to use it for this purpose. The principle of the removal of grease from metal work is based on the formation of a soda which becomes soluble in water.

It is a well-known fact that caustic potash is the most powerful alkali and far surpasses caustic soda in this respect. Grease is not only more rapidly attacked, but the soap so formed is much more easily soluble in water than that produced from the action of caustic soda. It is the exemplification of the well known process of making soft soap from caustic potash and hard soap from soda. It is quite obvious that a soft soap is more readily dissolved by water than the hard variety.

In one of the largest bicycle concerns which had previously used caustic soda because it was cheaper, it was found that a 3-degree Beaume solution of the best brand of potash obtainable would do the cleaning more thoroughly and quickly than a 20-degree Beaume solution of caustic soda. A stove maker states that he is now able, by using good caustic potash solution, to clean his work in about five minutes with a 7-degree solution. Another feature of caustic potash is that much work needs no manual labor put on it in the cleaning bath such as scrubbing, while caustic soda will rarely clean work sufficiently without such labor being put upon it.

BARTHOLOW SELF-HEATING SOLDERING IRON.

W. P. Bartholow, Webster City, Ia., is manufacturer of the Bartholow self-heating soldering iron shown in the accompanying illustration. This iron is

Bartholow Self-Heating Soldering Iron.

positively guaranteed by the manufacturer to work in the windiest weather. It does not burn the tinning off. When the user takes out three screws and removes the hollow copper joint he has a first-class blow torch.

DECALCOMANIA.

Signs have always played an important part in the business world. The striped pole was used for centuries to indicate a doctor-barber, although now confined to the latter trade, and three golden balls advertised a banker-money lender, although now confined to the latter business.

Reverting to our childhood, the green grocers' sign looms up as follows:

STRIKTLY FRESH AIGS

10 CENSE A DOSEN.

This phonetic gem was generally turned over to the grocer's boy to paint in shaky letters on discarded wrapping paper. It probably helped sell eggs, as all advertising does some good, but it was not aesthetic. It detracted from the tone of the store and excited

the contempt rather than the admiration of the buying public.

The pendulum of the mercantile world suddenly swung to the other side. The hardware man and the

grocer, the butcher, the baker, the candle-stick maker, realized the value of striking signs, and we do not know how many millions worth of gold is now used in expensive signs.

Gold-plated letters a foot high are very expensive, and one of these signs above a store with wrapping paper daubed with shoe blacking among the stock is as incongruous as a tennis suit at an evening reception. Happily the question of artistic signs is solved by Decalcomania, a transfer process, manufactured by the Meyercord Co., 1108-1114 Chamber of Commerce Bldg., Chicago. The accompanying cuts show how this firm's transfer process enables an amateur to easily transfer a striking sign to glass.

The following are the points claimed by this firm for their process:

"That in a design can be illustrated accurately package, trade mark, building, etc., in handsome, permanent and natural colors, including non-tarnishable aluminum gold metal leaf.

"That dealers and manufacturers are benefited alike and that every first-class dealer is generally pleased when he receives one of these handsome signs, as it is self-evident to him that the manufacturer is co-operating with him in an earnest effort to sell the goods.

"The signs are virtually imperishable and therefore infinitely cheaper than other sign advertisements. The signs cannot be removed from the windows with deliberate pains being taken; ordinary washing of the windows does not affect them.

"Our sign calls attention to a product just at the right time—when the purchaser is in the store, and also catches the eye of the passer-by; it tells your story at a time, in a place, when and where the goods are on sale.

"Our signs are always in plain sight; nothing can be hung over them; wind cannot blow them off a hook.

"Our signs are opalescent and non-obstructing light, being made in open sign writer's style, quality and effect.

"The signs can readily be applied without much time, skill or expense by any novice.

"The signs can be mailed, can be carried conveniently by salesmen or can be shipped with goods."

NINETEENTH ANNUAL MEETING OF DEFENSE ASSOCIATION.

Secretary Thomas J. Hogan of the Stove Founders' National Defense Association, with headquarters in the Auditorium Tower, Chicago, is sending out the following call for the 19th annual meeting of that organization:

"The nineteenth annual meeting of the Stove Founders' National Defense Association will be held at the Waldorf-Astoria, New York City, on Tuesday, May 10.

"Proceedings will commence promptly at 10 a. m.

"Your attention is called to the fact that the meeting of this association is held one day prior to the meeting of the N. A. S. M.

"President Castle urges the attendance of every member at this meeting, as matters of special importance will be considered and acted upon."

The Eclipse Stove Co., Mansfield, O., have greatly improved their line of stoves and ranges for 1904. Among recent additions to their line is the Una Eclipse, a new low priced Oak made of good materials, well mounted, nicely nickeled in three sizes.

CO-OPERATIVE STOVE STORAGE.

The "get together" idea fostered by the various state and local hardware associations has proven helpful to hardware dealers in cities of all sorts and conditions. Co-operative buying has proven helpful in Chicago and also in Centralia, Ill., two communities where conditions are radically different. Council Bluffs, Ia., is a city where the best of good feeling exists among the retail hardware dealers. Among other things they formed the nucleus of the Iowa Retail Hardware Dealers' Association and the dealers of the state in gratitude for their services have exacted heavy toll when it came to filling association offices. Such Council Bluffs names as Cole, De Vol, Brelsford and Swaine occupy conspicuous places on Iowa's roster.

These Council Bluffs dealers have combined in forming a stove storage concern as the Council Bluffs Stove Storage Co. was incorporated late in March by P. C. De Vol, T. N. Petersen, Henry S. Petersen, Chas. Swaine and C. P. Mauer, with a capitalization of $5,000.

The manner in which this co-operative company came to be formed is thus described by Paul C. De Vol, one of the incorporators:

"For the last two years I have thought seriously of discontinuing the stove storage branch of our business and I finally suggested to one of our dealers, Mr. T. N. Peterson, that we incorporate a stove storage company.

"This idea seemed to please him, as he had the same annoyance as we have been having, especially in the fall of the year.

"Last October we had an early cold storm and that morning we had about twenty calls for stored stoves, and we sold about fifteen new stoves. We wanted to please all of our customers and we were strictly up against it.

"There was dissatisfaction on the part of those we could not serve, and I know of several good customers we lost, just because we were unable to set their stove up, when they wanted it.

"We were not prepared for so sudden a turn in the weather, and we did not have help enough to take care of the rush.

"I called a meeting of the local hardware dealers and presented the idea to them. Every dealer hired two men nearly the year round to take care of the stored stoves, making eight men in all. The new company hires two men regular, and in a pinch they can pick up two men, and by this way they can handle the 600 stoves that are stored here every year, at a greater advantage and at a much less expense, than we have been able to do the work heretofore.

"We calculate that the way we are running the business that we can make a fair percentage of profit on our investment:

"We rented a large warehouse at a nominal price; we bought two wagons and two horses, trucks, etc., to carry on the business.

"I enclose a sample receipt that we make out, in duplicate, giving one to the customer and keeping one for our record; these receipts are all numbered. Also, we have a tag that is numbered, and when the stove comes in we put the number tag that is on the receipt.

"We index the numbers with the name, in our record book, so that it is no trouble to refer to the stove and we have this means of checking up the stoves.

"One of the men is the manager and he reports every week to our secretary, who keeps the business under his supervision.

"We have a president, vice-president, secretary and treasurer.

"We do all kinds of repairing and moving of stoves for people at times that the men are not after stored stoves, and by this way we expect to have quite a little coming in to help out."

COUNCIL BLUFFS STOVE STORAGE CO.

STORAGE RECEIPT No.....

Received of..... 190....

Residence..... the following articles to be stored

		REPAIRS TO BE ORDERED
Stove.....	Shaker	.....
Name.....	Ash Pan	.....
Number.....	Shovel	.....
Style.....	.....	Storage Fees - - $.....
CONDITION OF STOVE.	.....	Payable Sept. 1, 190....
.....		
.....		
.....		

No new mica or repairs furnished at above price. It is understood we are not responsible for loss by fire, lightning or other unavoidable causes. We do not store pipes or stove boards.

Signed.....

Owner.....

The Hardware Record.

American Hardware Mnfs. Assn.
Pres., J. C. Birge, St. Louis, Mo.
Vice-Pres., F. S. Kretsinger, Ft. Madison, Ia; Harry B. Lupton, Pittsburgh, Pa.; Geo. W. Corbin, New Britain, Conn.
Secy.-Treas., F. D. Mitchell, Phila.
Ex. Com., C. W. Asbury, Philadelphia, Pa.; Chairman; Robert Garland, Pittsburgh, Pa.; N. A. Gladding, Indianapolis, Ind.; Geo. P. Hart, New Britain, Conn.; Wm. M. Pratt, Greenfield, Mass., W. S. McKinney, Allegheny, Pa.; E. G. Buckwell, Cleveland, Ohio; E. B. Pike, Pike Station, N. H.

Arkansas Retail Hdw. Dealers' Assn
Pres., J. F. Maxey, Ozark.
1st V.-P., H. Williams, Hot Springs.
2d V.-P., A. L. Skillern, Nashville.
S.-T., C. E. Taylor, Little Rock.
Ex. Com., C. T. Rosenthal, Batesville; T. B. Stewart, Newport; E. E. Mitchell, Morrillton; W. M. Graham, Clarendon; R. F. Roys, Russellville.

Chicago Retail Hdw. Dealers' Assn.
Pres., H. E. Gnadt.
V.-P., G. A. Neeb.
Sec., G. R. Lott.
Collector, John Hora.
Treas. J. L. Smith.

Hardware Merchants' and Manufacturers' Assn. of Philadelphia.
Pres., Thomas Devlin.
V.-P., John R. Griffith.
S.-Treas., T. James Fernley.
Directors, W. W. Supplee, John R. Griffith, E. S. Jackson, W. C. Peters, S. Disston, E. Fisher, J. H. Ritter, T. Devlin, T. J. Fernley.

Indiana Retail Hdw. Dealers' Assn.
Pres., E. M. Bush, Evansville.
1st. V.-P., A. Shidler, So. Bend.
2d V.-P., T. J. Lindley, Jeff ersonv'l
Sec.-Treas., M. L. Corey, Argos.
Members Ex. Com., W. P. Lewis, New Albany; Chas. E. Hall, Indianapolis; J. L. Fulton, Portland.

Illinois Retail Hdw. Dealers' Assn.
Pres., Charles H. Williams, Streator.
V.-P., W. T. Gormley, Chicago.
Sec., L. Nish, Elgin.
Treas., Geo. A. Englehardt, Chicago.
Ex. Com., Charles H. Williams, Streator; W. T. Gormley, Chicago, L. Nish, Elgin; Geo. A. Engelhardt, Chicago; Frank McKinney, Rockford; Chas. Johnson, Peoria; L. D. Ray, Belvidere; F. F. Porter, Chicago; Wm. Bittel, Peoria; H. G. Cormick, Centralia.

Indian Territory Retail Hdw. Assn.
Pres., J. G. Smith, Canadian.
1st V.-P., Fred Parkinson, Wagoner.
2nd V.-P., E. C. Stretch, Vinita.

Iowa Retail Hdw. Dealers' Assn.
Pres., S. R. Miles, Mason City.
V.-P., H. S. Vincent, Ft. Dodge.
Treas., A. C. Vieth, Oakland.
Members Ex. Com., T. A. Nichols, Burlington; D. A. Stauffer, Iowa City; W. B. Baumgardner, Dubuque; U. S. Johnson, Tama; F. W. Ritter, Hedrick; Thomas Gadd, Des Moines; F. F. Botlinger, Afton; Chas. Swaine, Council Bluffs; Wm. H. Millard, Cherokee.

Kansas Hardware Dealers' Assn.
Pres., Oscar Roehr, Topeka.
V.-P., E. J. King, Logan.
Sec.-Treas., J. A. Cole, Topeka.
Ex. Com., F. W. Bartlett, Kansas City; T. H. Kiniry, Beloit; J. M. Walters, Robinson; J. H. Hamilton, Arkansas City; T. J. O'Neill, Osage City.

Kentucky Retail Hardware and Stove Dealers' Association.
Pres., J. C. Frederick, Owenboro.
1st V.-P., J. C. Mahon, Lawrenceburg.
Sec., John R. Sower, Frankfort.
Treas., J. Steitler, Owensboro.

Michigan Hardware Association.
Pres., John Popp, Saginaw.
V.-Pres., F. M. Brockett, Battle Creek.
Treas., Henry C. Weber, Detroit.
Sec., A. J. Scott, Marine City.
Ex-Com., W. P. Culver, Portland; K. S. Judson, Grand Rapids; J. H. Whitney, Merrill; E. J. Morgan, Cadillac; T. Frank Ireland, Belding; Fred S. Cook, Fowlerville; C. E. Pipp, Otsego; A. Harshaw, Delray; A. J. Scott, Marine City.

Minnesota Retail Hardware Assn.
Pres., A. T. Stebbins, Rochester.
V.-P., George Evenson, St. Peter.
Sec., M. S. Matthews, Minneapolis.
Treas., Geo. F. Duerre, Plain View.
Ex-Com., W. H. Tomlinson, Le Suer; J. H. Smith, Minneapolis; H. R. Schroeder, St. Paul; J. A. Roehl, Owatonna; W. T. Cowing, Alexandria; C. H. Casey, Jordan; Louis Gewalt, Breckenridge; Chas. F. Ladner, St. Cloud; J. F. McGuire, St. Paul; A. T. Stebbins, Rochester; Geo. M. Evanson, St. Peter.

Missouri Retail Stove and Hardware Dealers' Association.
Pres., Tayler Frier, Louisiana.
V.-P., E. L. Wachter, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., J. W. Poland, Carrollton; F. N. Kannsteiner, St. Louis; W. T. Shoop, Richmond.

National Hardware Association.
Pres., S. A. Bigelow, Boston.
1st V.-P., John C. Koch, Milwaukee.
2nd V.-P., Bruce Hayden, San Francisco.
Ex. Com., F. Barker, Elmira, N. Y.; J. D. Moore, Birmingham, Ala.; John Freeman, Detroit; P. E. Strouss, Boston; R. M. Dudley, Nashville; W. S. Wright, Omaha.
Advisory Board, W. W. Supplee, Philadelphia; H. H. Bishop, Cleveland; John Bindley, Pittsburg; R. A. Kirk, St. Paul.

Nebraska Retail Hdw. Dealers' Asn.
Pres. J. C. Cornell, Ord.
Vice-Pres., F. D. Kees, Beatrice.
2d V.-P., Max Uhlig, Holdrege.
Sec.-Treas., H. J. Hall, Lincoln.

National Retail Hdw. Dealers' Asn.
Pres. W. P. Bogardus, Mt. Vernon, O.
V.-P., W. H. Tomlinson, LeSuer, Minn.
2d V.-P., F. C. Moys, Boulder, Col.
Sec., M. L. Corey, Argos, Ind.
Treas., A. T. Stebbins, Rochester, Minn.
Ex. Com., T. Frank Ireland, Belding, Mich.; James N. Kline, Williamsport, Pa.; Frank F. Porter, Chicago; S. E. Jones, Richmond, Ind.; A. H. Abbe, New Britain, Conn.

N. Dakota Retail Hdw. Dealers' Asn.
Pres., H. F. Emery, Fargo.
1st V.-P., G. W. Wolbert, Bismarck.
2d V.-P., A. C. McNiven, Langdon.
3d V.-P., J. B. Boyd, Rugby.
Sec., C. N. Barnes, Gand Forks.
Treas., H. T. Helgesen, Milton.
Ex. Com., E. E. Elliott, Sanborn; H. F. Strehlow, Casselton; Hurbert Harrington, Fargo.

Ohio Hardware Association.
Pres., John F. Baker, Dayton.
V.-P., C. S. Johnson, Barberton.
Cor. Sec., Frank A. Bare, Mansfield.
Fin. Sec., W. C. Jones, Columbus.
Treas., L. F. Stahler, Waverly.
Ex. Com., John C. Fuhr, Williamsburg; John Kramer, Dayton, C. W. Jewell, Utica; W. A Perry, Zanesville; Frank W. Ingalls, Byran.

Pennsylvania Retail Hdw. Assn.
Pres., Geo. L. Moore Brownsville.
V.-P., Geo. J. Rudolph, Pittsburg.
Sec., J. E. Digby, McKees Rocks.
Treas., B. A. Maggine, Braddock.
Ex. Com., E. E. Lyon, Greensburg; C. N. Savage, California; B. A. Maggine, Braddock; C. O. Shroyer, Dawson.

St. Louis Stove Dealers' Assn.
Pres., R. H. Myers.
1st V.-P., E. L. Wachter.
2d V.-P., G. M. Rinie.
Sec., Louis Boehl.
Treas., F. A. Kannsteiner.

Southern Hardware Jobbers' Assn.
Pres., W. M. Crumley, Atlanta, Ga.
1st V.-P., John Donnan, Richmond, Va.
2d V.-P., E. A. Peden, Houston, Texas.
Ex. Com., Bruce Keener, Knoxville, Tenn.; Chas. Ireland, Greensboro, N. C.; O. B. Barker, Lynchburg, Va.

Texas Retail Hdw. and Imp. Assn.
Pres., S. L. Erwin.
1st V.-P., W. M. Grunnell.
2d V.-P., J. D. Carroll.
Sec., J. W. McManus.

Wisconsin Hdw. Dealers' Assn.
Pres., H. L. McNamara, Janesville.
V.-P., Ralph Burtis, Oshkosh.
Sec.-Treas., C. A., Peck, Berlin.
Ex. Com., W. H. Busse, Milwaukee; E. R. Ramm, New London; H. S. Scofield, Sturgeon Bay; R. Murdoch, Beloit.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 38 to 42 inclusive.

Ben S. Clarke is a new Ashland, Neb., hardware dealer.

Strahn Bros. are about to embark in the hardware business at Kiron, Iowa.

Dalner & Neice, Mt. Pleasant, Ia., hardware dealers, succeeded by George Crane.

The American File Co., Augusta, Me., have changed their style to the Colonial File Co.

G. H. Washburn & Co., Giltner, Neb., hardware dealers, are succeeded by F. C. Mather.

The Automatic Screen Co. are a new Grand Rapids, Mich., concern, capitalized at $100,000.

Henry Altorfer & Co. succeed Altorfer & Sauder in the hardware business at Roanoke, Ill.

The Pennsylvania Woven Wire Co. are a new Lock Haven, Pa., concern, capitalized at $125,000.

P. H. Brown has purchased the hardware stock of Johnson & Amondson at Worthington, Minn.

Homer Hunt and Chas. L. Pierce succeeded R. E. Lum in the hardware business at Comanche, Ia.

The Miller-Chapin Enwright Hardware Co. are erecting a substantial hardware store at Sacramento, Cal.

B. Shales & Co., Worcester, Mass., have sold their razor business to the Eddy Manufacturing Co. of that city.

Laughlin Hardware Co. succeed Moore & Pence in the hardware and stove business at Jackson Center, Ohio.

Armstrong and Ranch bought the hardware stock formerly owned by Armstrong & Morton at Shelby, Ohio.

The Temple Hardware Co., Oklahoma City, Okla., have increased their capital stock from $5,000 to $10,000.

The Joseph Dixon Crucible Co., Jersey City, N. J., send us one of their calendar blotters for the month of April.

The Cole-Brelsford Hardware Co., Council Bluffs, Iowa, are succeeded by the Paddock-Handschy Hardware Co.

John Booth, dealer in wire fences, will remove on May 1st from 114 Lake St. to 14-16 S. Canal St., Chicago.

Perry M. Bounds, Frank McCafferty, M. B. Schley, Carl Lewis and F. L. Hogsham are the incorporators of the Bounds Wire Fence Co., Columbus, O., capitalized at $25,000.

W. A. Kromer, manager of the Chicago office of E. C. Atkins & Co., Inc., the saw manufacturers, with headquarters at 165 Lake St., will make a hegira on May 1st to larger quarters at 38 S. Canal St.

Elisha E. Houghton, a Marseilles, Ill., hardware dealer, died on April 5th in the 79th year of his age. The stores of the city were closed during the hour of

the funeral services, which took place on the morning of April 7th.

The hardware store of B. S. Prunty, Boone, Ia., was visited by fire on April 8th last, the stock being entirely destroyed.

The Duke-Peterson Hardware Co. succeed Findlay Robertson & Co, in the wholesale hardware business at Baltimore, Md.

The Noble Hardware & Lumber Co. are a new Noble, Okla., concern incorporated with a capital stock of $10,000.

Morrison & Thomas, San Jose, Ill., hardware dealers, are removing their stock to the John L. Eyrse building, that city.

The factory of the Derby Silver Plate Cutlery Co., Shelton, Conn., was visited by fire on March 30th last. The loss was $60,000.

A heavy windstorm visited the city of Macomb, Ill., on April 8th at 4:30 a. m., causing considerable damage to the hardware stock of Charles Worley.

The Shelby Hardware Co. are embarking in the hardware business at Shelby, Ohio. Mr. Morton, formerly with Armstrong & Morton, is the manager.

Bradley & Hubbard, manufacturers of gas fixtures at 28 Park place, New York, were visited by fire on April 4th and were damaged to the extent of about $1,000.

W. G. Aborn, C. J. Robinson, J. L. Findlay, W. A. Coy and R. F. Trumper are the incorporators of the Lake Erie Nail & Supply Co., Cleveland, O., capitalized at $15,000.

W. D. Fay, Simon Steiner and T. M. Herringshaw are the incorporators of the Western Co-Operative Supply Co., Chicago, capitalized at $2,500, for manufacturing hardware.

Francis J. Murphy, Wm. H. Murphy and Wm. H. Wetherbee are the incorporators of the Murphy Heating Co., Detroit, Mich., capitalized at $100,000, to do a general heating business.

W. R. Bemis, A. T. Christmann, L. S. McAfee, C. F. Waggoner, H. J. Leary, and W. W. Campbell are the incorporators of the Toledo Handle Co., Toledo, Ohio, capitalized at $25,000.

Frank H. Battles, Charles J. Brown and Thomas J. Swanton are the incorporators of the Foster Steel Stanchion Co., Rochester, N. Y., capitalized at $50,000 for the manufacture of cattle stanchions.

H. DeWitt Whittlesey, Edgar S. Kidder and Wm. J. Lawson are the incorporators of the Sherwin-Williams Co., Newark, N. J., capitalized at $200,000, for the manufacture of paints and varnishes.

C. E. Bonner, Geo. W. Fair and D. B. Tucker are the incorporators of the C. E. Bonner Mfg. Co., Chrisman, Ill., capitalized at $30,000, for the manufacture of wrenches and other articles of hardware.

John C. McCarthy, George B. McCarthy and Edward W. McCarthy are the incorporators of J. C. McCarthy & Co., Brooklyn, N. Y., capitalized at $50,000 for the manufacture of hardware and tools.

C. J. Basil, Joseph W. G. Alford and Geo. M. Bechel are the incorporators of the Alfred Window Lift & Safety Lock Co., New York, capitalized at $100,000 for the manufacture of window lifts and safety locks.

On April 9th the Wisconsin Hardware Dealers' Mutual Fire Insurance Co. was admitted to do business in that city. C. A. Peck, Berlin, is secretary of this company and H. L. McNamara of Janesville is treasurer.

Marietta C. Simonds, Caroline S. Clements, Herbert R. Simonds, Cora S. Henry and Eugene G. Kennedy are the incorporators of the A. A. Simonds & Co., Dayton, O., capitalized at $45,000 for the manufacture of edge tools.

Albert B. Curtis is president, F. E. Reed is treasurer and Waldo A. Loud is superintendent of the Worcester Lawn Mower Co., Worcester, Mass., incorporated with a capital stock of $15,000 for the manufacture of an improved lawn mower.

M. C. Randleman & Sons, Des Moines, Ia., have sold their washing machine business to the Gee Whizz Washing Machine Co., who will continue the manufacture of the Gee Whizz washing machine. This new company are incorporated with a capital stock of $50,000.

The recent death is announced of Wm. Hill, Stanton, secretary of the Biddle Purchasing Co., New York, which took place from pneumonia while he was on a pleasure trip to Bermuda. Mr. Stanton was in the 46th year of his age, and had been associated with C. M. Biddle & Co., Philadelphia and New York, for a long number of years.

The following item is taken from the Granite, Minn., Journal of April 7th: "A Hanley Falls hardware firm advertised a drawing for a fanning mill, one day last week, and the result was a town full of farmers on that day, and a rushing business was done. Perhaps you think such things do not pay, but if you do you are mistaken."

J. M. Ford of Wozab & Ford, Humboldt, Neb., hardware dealers, met with a peculiar and serious accident on April 5th. He had climbed on a counter and had a lantern globe in his hand, which he had shown to a customer, when he slipped and fell. The globe was broken and the thumb of his right hand nearly severed on the sharp edges of the broken glass.

The Pierce Hardware Co., Oakland, Cal., were recently swindled out of a valuable shot gun. They were called up over the telephone by a party who asked that the gun in question should be sent to a prominent local furniture man for his approval. A man was waiting at the entrance, took the gun from the driver, walked into the furniture store and started out the other entrance; neither man or gun has since been seen.

Henry Disston & Sons, Inc., Philadelphia, Pa., are manufacturers of the Disston wood saws, which have many points to commend them to the trade. The frames are perfectly seasoned, being made of a carefully selected lumber of a thickness especially calculated for strength. The shapes are designed for ease in handling, are symmetrical in all proportions, and well finished. The rods are constructed of steel wire with threads square cut, loops strongly riveted and

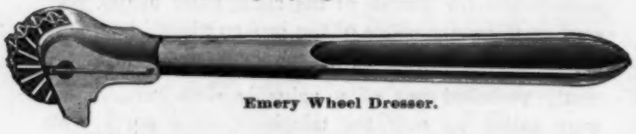
with heavy heads. The blades are made of the finest quality of crucible steel, carefully hardened and tempered, accurately ground, filed and set.

The Fred J. Meyers Mfg. Co., Hamilton, Ohio, send us a couple of circulars. One calls attention to their ticket and conductors' punches, wire waste paper baskets, letter trays and baskets, counter railings and wickets, bill files and hooks, wire window guards and wire signs, while the other shows a complete line of fly traps, bird cages, round and oval dish covers, horse muzzles, dog muzzles, wire and iron tree guards, wire and iron setees and chairs, trainers and trellises, ornamental grilles, elevator cars and enclosures, bank and counter railing, balcony railing, wire and iron window guards, wire signs, metal signs, roof cresting, stable fixtures, iron stair work, folding gates, and ornamental wire, iron, steel and brass work of every description.

The trade will regret to learn of the death of Wm. H. Hay, 123 Algoma St., Petoskey, Mich., which took place on April 7th last. Mr. Hay had been in failing health for the past two years owing to a stroke of paralysis, and this disease took the form of locomotor ataxia, rendering him practically helpless for a protracted period. Mr. Hay was born in Girard, Pa., in 1840, and entered the hardware business in Oshkosh in 1858. In 1863 he became a partner in the Hay Hardware Co., with which he remained for 40 years. He served as one of the alderman in Oshkosh in 1888. He leaves a wife and six children, including John Hay, who is in the hardware business at Omro, Wis. The late Wm. H. Hay was one of the organizers of the Wisconsin Retail Hardware Dealers' Association and always took an active interest in the annual conventions of that body. He wrote a number of extremely valuable papers, dealing with hardware conditions in the time of the civil war, tracing the progress and changes in the business from that time until the present.

"COLUMBUS" EMERY WHEEL DRESSER.

The Columbus Bolt Works, Columbus, O., are manufacturers of the "Columbus" emery wheel dresser shown in the accompanying illustration.



Emery Wheel Dresser.

While comparatively inexpensive this dresser will, it is claimed, do four times the work of the ordinary saw tooth dresser. In the latter style it is said that sheet steel disks are put in with teeth somewhat like a circular saw. When these teeth are worn, they must be replaced with a new set, which is costly, it is claimed, while in the "Columbus" the wheel will wear from the outer circumference down to within 3/8-inch of the center, and the wheel in wearing down at any stage will do more work than the ordinary dresser when new, which only wears off the saw teeth. The handle is made of gun iron. Through the end upon which the wheel revolves is inserted a crucible steel hardened pin, which forms the axle upon which the wheel rotates. When worn, this pin is taken out, and put in a new set, which only costs 15 cents, or something less if bought in lots of 100. This firm would be glad to send one of these very economical dressers to the trade on trial.

RELIANCE WASHER.

The Fawkes Mfg. Co., Inc., Minneapolis, Minn., are manufacturers of the Reliance washer shown in the accompanying cut.

The mechanical construction in the Reliance constantly changes the position of the clothes, exposing all parts alike to the rubbing surfaces and washes the finest fabric without breaking a thread, and the heaviest blanket with ease. It has no machinery on top to keep oiled. Both tub and dasher revolve the same time in opposite directions. The washer and the weight is carried on a steel pivot with chilled bearings working in oil, and is absolutely noiseless. There is no heavy fly wheel and casting to lift when lifting the lid. The tub has a full open top, which is a good point. The handles turn down out of the way when not in use and machine can be used for a work table if so desired. The wringer can be placed on the tub any place; still another good point. The operator sits in a chair, turns tub about one-third of a revolution, and the heavy coil spring, which engages at each extreme point, helps reverse the motion, which makes it the easiest operated machine on the market, it is claimed. It is built of the best material, by skilled workmen, and every tub is fully guaranteed.

Reliance Washer.

PARAGON CYLINDER WASHER.

J. M. Gagan & Co., Chicago, are manufacturers of the Paragon cylinder washer shown in the accompanying illustration. A leading feature of this washer is found in a revolving cylinder inside the outer tub. As the washer is made almost entirely of galvanized steel, it is not affected by climatic conditions. It is guaranteed not to injure the finest fabric, and at the same time it will wash the heaviest blankets. It will wash eight sheets or their equivalent in one operation. The manufacturers would be glad to send catalogues and discounts to the trade on application. When writing for same, kindly add: "Saw it in THE AMERICAN ARTISAN."

Paragon Cylinder Washer.

The Pope Tin Plate Co.'s mill at Steubenville, O., started running in full on April 6th last.

THE "1900" WASHER.

The "1900" Washer Co., Binghamton, N. Y., are manufacturers of the "1900" washer shown herewith.

Fig. 1—As It Appears Looking Under the Bottom of the Tub.

It revolves on ball-bearings, which render the rotatory movement as easy as the wheels of a high-grade bicycle.

The "1900" washer will wash any garment without boiling, without scrubbing and without wear or tear.

The operator turns it to the right and to the left about half way around each time. To make it work as nearly automatic as possible it is provided with two oil-tempered coiled springs which engage at each extreme point and help to reverse the motion. The machine moves uninterruptedly until it reaches the point where it should be reversed; then it comes in contact with the force of these springs and, like the action of a rubber ball, bounds back, meeting the spring force again at the other extremity.

Fig. 2—Inside View of Tub and Bottom of Agitator.

Fig. 2 shows the bottom of the tub and the rubbing-board attached to it. As described before, the tub turns, consequently this washboard moves. The clothes are placed in the tub and the disk shown in the cut, which we call the agitator, is placed over them with the washboard-side down. This agitator does not turn, but adjusts itself automatically up and down, regulated by the amount of clothes and water in the tub. Over this a cover is placed to prevent steam from escaping.

Fig. 3—Showing Interior with Clothes in Process of Washing.

Fig. 3 shows the agitator in position with the clothes and water between the upper and lower rubbing-boards, and as the tub is revolved back and forth, the garments are tossed and tumbled and rubbed and scrubbed in a whirlpool of moving water. The rubbing loosens the dirt and the water rinses and washes it out by being forced back and forth through the fibers of the clothes. Many washers have been made that rubbed garments, and others that moved the water, but it is the combination of both that makes a successful washer.

Fig. 4—The Complete Machine Ready for Use

The "1900" washer is made of the best materials throughout. We would particularly call attention to the tub, which is made of the best material and hooped with galvanized wire, electric welded hoops. These hoops have double the strength of the old-style riveted flat hoops. They are embedded, by a special process, into groves in the tub, and clamp the staves so tightly that it is impossible for the rust to get under them and eat them up. The legs are symmetrical and nicely finished in natural wood.

HARDWARE SPECIALTIES.

The C. A. Peck Hardware Co., Berlin, Wis., are manufacturers of the Automatic nail keg and barb wire truck shown in the accompanying cut. This truck, it is claimed, is the only all steel keg truck on the market which automatically grabs and releases kegs and spools of wire and does not require any lifting on the part of the operator in moving these articles from place to place. It is claimed for this truck that it will save the hardware man two-thirds of the lifting which he has to do with these commodities and does the same in a much more expeditious manner. The keg does not need to be tipped up—the truck is simply run up to the keg or spool, the handle raised to a vertical position when the truck automatically grabs the article; the truck handle is then pulled backward and the article is ready to be trucked where desired. It is equally handy for barrels and even boxes, from which the cover is removed, can be grabbed and trucked with this tool. It handles broken or full kegs with equal facility. They are also manufacturers of the celebrated "Uncle Sam," "Gem" and "Diamond" rural mail boxes.

Automatic Nail Keg and Barb Wire Truck

Gem Mail Box.

The indoor pistol championship of the U. S. Revolver Association was recently won by Dr. E. H. Kessler, St. Louis, Mo., who scored 450 points out of 500 at a distance of 20 yards, using a Stevens Lord Model pistol, .22 long-rifle cartridge. This pistol is manufactured by the J. Stevens Arms & Tool Co., Chicopee Falls, Mass., who feel justly proud of this superlative achievement of Dr. Kessler's, especially as it is the latest victory in an unbroken chain of triumphs scored by the Stevens target pistols.

A BARBECUE.

Roas' dat oxen, white man,
  Roas' him troo and troo.
Nigger lub roas' oxen
  In de gran' ol' barbecue.

Carve dat oxen, white man,
  Carve him heart in two,
Nigger lub roas' oxen
  In de gran' ol' barbecue.

In the earlier years of the 19th century, when the South was one expanse of plantations, the barbecue, which was a social entertainment *al fresco,* with an ox roasted whole, was a flourishing institution. Families would gather in some central spot for a good old-fashioned Southern time, and that their dusky retainers were allowed to participate in the gastronomic delights of the occasion is shown by the above plantation melody.

This uniquely American festivity has been falling into desuetude.

It has been prostituted to politics and rallies of different political parties have been styled barbecues in order that the sentiment clinging to the social entertainment of plantation days might help swell the hustings crowd.

Thanks to the Atlanta hardware jobbers, the members of the American Hardware Manufacturers' Association and the Southern Hardware Jobbers' Association are invited to a genuine old-fashioned barbecue next month. Secretary C. B. Carter of the latter organization gives these particulars concerning the affair in a recent favor:

"Mr. Crumley advises us that arrangements have been perfected and that a very enjoyable time may be anticipated. Arrangements are being made for the trolley ride to start at 11 o'clock Friday morning. The barbecue will be held in a private park, where every convenience can be had. In going to the barbecue and returning to the city, many points of interest will be visited on the trolley ride.

"We wish to assure you that the barbecue which the Atlanta jobbers will give the association and visiting manufacturers will be a very interesting affair and one long to be remembered. Many of our manufacturing friends never had the pleasure or privilege of participating in a barbecue, and it will therefore be a very attractive feature to them."

FORTHCOMING MEETING A. H. M. A.

Under cover of April 9th, F. D. Mitchell, secretary and treasurer of the American Hardware Manufacturers' Association, is sending out the following announcement concerning the meeting of the American Hardware Manufacturers' Association, which is scheduled for May 24-27 next, at the Piedmont Hotel, Atlanta, Ga.

"We are advised by the Piedmont Hotel, Atlanta, that they have booked all their single rooms for the above occasion, and that 'such further bookings as we may make will of necessity be for two or more in a room.'

"The attendance of both manufacturers and jobbers will be unusually large, and as we must soon place the orders for badges, banquet menus, numbered buttons, etc., we would ask that you kindly fill out the enclosed return-addressed postal card and mail same at your early convenience, that we may closely approximate the quantities which will be required. These cards will also be used as 'printer's copy' in compiling printed key to numbered buttons, and the data summarized for use of the entertainment committee and others, to secure to all in attendance the various privileges of the occasion.

"We are to-day in receipt of advice from President Crumley of the Southern Hardware Jobbers' Association stating that the Atlanta Hardware Jobbers have perfected arrangements for a 'barbecue,' which they will tender to the visitors at this convention on Friday afternoon, May 27th, at 2:30, and their Friday morning meeting will be made brief to admit of starting promptly at 11 o'clock on a trolley ride around Atlanta terminating at the 'Cue Grounds.' These grounds are private property, and Mr. Crumley assures us that 'Those who do not go will regret it.' The committee at Atlanta desires to learn at this time how many will attend the barbecue, and we would ask that you indicate on the enclosed postal the names of those who will accept their invitation to this entertainment feature.

"While the various passenger associations have not published the reduced rates for the convention, we understand that it will be one-fare-round-trip for passage through 'southeastern' territory (south of Ohio and Potomac Rivers and east of the Mississippi) plus 1 1-3 fares for round trip for passage through all other passenger association territories. For example, New York members upon presentation of certificate showing payment of one first-class fare, New York to Atlanta, may exchange same (properly vised at the convention) for return ticket upon payment of one-third first-class fare from Washington to New York.

"Important.—Be sure and indicate on the postal those who will stay over for the 'barbecue,' and please advise promptly.

WORLD'S RECORD IS TIED.

H. M. Pope tied the world's record of 917 for 100 shots, off-hand, held by D. W. King of Denver, Col., at the regular weekly shoot of the Rod and Gun Rifle Club at the Lake Lookout range, Springfield, Mass., April 9th. The scores were shot at 200 yards on the standard American target. Mr. Pope used a Stevens-Pope 33-caliber rifle, mounted with a Stevens-Smith telescope, and made by the J. Stevens Arms & Tool Co., Chicopee Falls, Mass. Mr. Pope's performance is regarded by marksmen as most remarkable and one that called for not only great skill and the finest judgment, but courage and endurance as well. The conditions under which he shot grew more adverse as he neared the end of his long string, until the rain, the wind and the gathering dusk made it very difficult to shoot accurately; and yet the five last shots of his 100 were placed in the center of the target, where they scored 10, the highest possible score to make. The 10 circle is 3 36-100ths inches in diameter, and

to put five consecutive bullets in this circle at 200 yards, off-hand, under those conditions was a fine achievement. More than that, several of these shots were within rings inside the 10 circle, which are used for scoring when shooting with machine rests. The 12 circle is but little more than one inch in diameter, and yet two of the five hit this tiny mark. All of the 100 shots were in the bull's-eye and 94 of them were within the eight ring. The score was as follows, the 11's and 12's counting as 10's:

H. M. Pope—

8	12	9	8	11	11	11	8	9	10	—92
8	9	10	9	9	11	10	8	10	9	—92
8	9	10	11	10	9	11	7	9	10	—92
10	12	8	11	10	7	9	8	9	8	—89
9	9	10	9	8	9	8	9	10	8	—89—454
8	11	8	10	9	8	10	9	12	11	—92
9	9	10	10	10	8	8	9	10	11	—93
10	9	9	8	9	11	11	12	11	9	—94
8	10	7	10	10	7	10	12	12	7	—89
7	12	12	9	9	12	12	11	11	10	—95—463
										917

This 100 shot score completes the list and Stevens and Stevens-Pope rifles now hold all records on all the targets used for off-hand shooting at 200 yards used in the United States for all the different numbers of shot usually fired in contests on these targets, it is claimed.

THE KEYLESS BANK.

The Keyless Bank Co., 30-36 La Salle Street, Chicago, are manufacturers of the Keyless bank shown in the accompanying cut. This bank locks and unlocks itself. The first dime locks it and it unlocks when $5.00 has been put in. The next dime locks it again. The bank will hold $40 in silver. A register in plain view counts the money. This bank is constructed of finely polished cold rolled steel, finished in nickel and beautiful antique and polished copper. It is a steel basket with a cover. The officials of the Jackson Trust and Savings Bank, Chicago, say this: "It is the most perfect and ingenious mechanical device ever invented as a safe receptacle for your small change. Every business man or woman, every working man or woman, should have one on his or her desk." You will find these banks on the desks of mayors and heads of departments in great cities, and you will find them in the homes of the people—working people, middle class, and even the rich.

Keyless Bank.

SAVAGE RIFLES.

The Savage Arms Co., Utica, N. Y., are manufacturers of the line of rifles shown in the accompanying illustrations. The following are some of the advantages of the Savage system.

The breech is strong, safe, and has solid breech-bolt.

Savage 22 Caliber Hammerless Repeating Rifle Model 1903.

The recoil supported in direct line of fire. No powder gas can escape to the rear of the breech mechanism to injure the eye of the operator in the event of a broken primer, or defective shell. The operator is protected by a solid wall of steel. There is a positive, multiplied extracting power. There is a positive ejector. The shells ejected to the side of the operator and away from his face.

Cartridges can not be fired until the breech mechanism is absolutely closed and safely locked. The entire system, trigger finger-lever, breech-bolt, etc., is locked by operating the trigger and lever-lock. The rifle has no projecting hammer. The position of the firing mechanism is always shown by an automatic indicator. There are few springs and component parts and the weight is light. It has an easy, smooth action. The balance and aim of the rifle is not disturbed while firing the magazine cartridges. The rifle can be easily and accurately operated from the shoulder position. The enclosed hammer is cocked by the closing movement of the finger-lever, thus pressing the rifle to the shoulder and steadying the aim. The concentric arm of the finger-lever always protects the trigger and prevents it from being caught and operated accidentally. It is a rapid single-loader and can be operated independently of the magazine. The cartridges in the magazine are always automatically indicated by numerals. The magazine cartridges are inside of, and protected by, the steel walls of the receiver. The cartridges in the magazine are held from end thrust by their rims. There is no upsetting or displacing of the bullets from end thrust, through shock of firing or handling, and no compressing of the powder in the shells. The cartridges in the magazine lie separated, side by side, and no bullets touch the primers of other cartridges. The magazine can be left loaded while the barrel chamber of the rifle is

Savage Single Shot Take Down 22 Caliber, Junior Model 1904.

Savage Hammerless Sporting Rifle Model, 1899.

empty, and cartridges in the magazine are in readiness for use by operating the finger-lever. Cartridges in the magazine are automatically held in reserve while using the rifle as a single-loader. Either black or smokeless powder can be used in these rifles.

DEATH OF C. A. PETERSON.

The entire hardware trade will deeply regret to learn of the death of C. A. Peterson, Oakland, Neb., which took place at his residence in that city at 5:00 a. m. on April 7th last, after a week's illness. While inspecting a new brick block, which he has been erecting in that city, Mr. Peterson scratched his right hand with a nail on a piece of old sidewalk. The hand and arm immediately began to swell and caused him severe pain, which continued in spite of the efforts of local physicians and those summoned from Omaha. He

C. A. Peterson.

died from blood poisoning, with a complication of diabetes. Mr. Peterson was in the 36th year of his age, and was one of the most prominent merchants in Eastern Nebraska. He took an active interest in the affairs of the Nebraska Retail Hardware Dealers' Association and served that organization very effectively as president from February, 1903, to February, 1904. He delivered a number of papers before this association, which were of deep interest. He was also one of the delegates to the meeting of the National Retail Hardware Dealers' Association in Chicago in 1903, and was enthusiastically devoted to the advancement of the retail hardware business through organization. His genial manners and winning personality made him a great favorite with the trade everywhere. Mr. Peterson was a leader in Masonic work and also in church and temperance circles. He was elected mayor of Oakland on the temperance ticket in 1897. He leaves a wife and three small children.

AUTOMATIC SPRING WINDER.

The Smith & Hemenway Co., 296 Broadway, New York, have undertaken the entire marketing of the automatic spring winder made by the Best Tool Co. of Boston, Mass.

Fig. 2. Automatic Spring Winder.

We illustrate herewith the method of using it, showing its adaptability for hand or power work, with mandrel in vise or lathe.

This spring is made in two sizes; No. 633, 5" long,

Fig. 1. Automatic Spring Winder.

and No. 634, 9½" long. The former being made to manipulate wire in Brown & Sharpe gauges, Nos. 36 to 12 inclusive, and the latter, No. 634, wires in gauges 24 to 3 inclusive. The tension and spacing plates are

Fig. 3. Automatic Spring Winder.

of Coe bronze with malleable handles. Special springs can be easily improvised by the automatic spring winder if wires and proper mandrels are at hand.

The St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn., are erecting a plant at Warner and Dock streets, Baltimore, Md., and will shortly install an equipment for the manufacture of sheet metal window frames, casings and sash. C. D. Pruden will be the general manager of this Baltimore branch.

Heating and Ventilating

It is said that the Angola Furnace Co. will shortly move to Fort Wayne, Ind.

The National Association of Master Plumbers will meet at St. Louis September 6th, 7th and 8th next.

On April 8th a fire devastated the plant of the U. S. Heater Co., Detroit, Mich., causing a loss of $10,000.

The American Society of Heating & Ventilating Engineers will meet at Detroit, Mich., July 15th and 16th.

Wm. C. Tranz, John J. Phelan and August C. Einbeck are the incorporators of the Sun Heating Co., Jersey City, N. J., capitalized at $100,000.

The Tuttle & Bailey Mfg. Co., manufacturers of warm air registers, will move their Chicago office from 49 Lake St. to new and larger quarters at 211-213 Lake St.

The American Radiator Co., Lake and Dearborn Sts., Chicago, advise us that their Buffalo branch is now located in their new office at 206 Mutual Life Bldg., that city.

F. A. Clegg, Henry Weilage, Geo. Mathews and Otto Krause are the incorporators of F. A. Clegg & Co., Louisville, Ky., capitalized at $25,000 for the manufacture of steam heaters.

The Shirley Radiator & Foundry Co., Shirley, Ind., are erecting a new 70x114 foot addition to their factory building, and they are also putting up a new warehouse 75x150 feet in dimensions.

Wm. E. Edwards is president, John H. Jones is vice-president, Joseph J. Hjar is treasurer and Wm. Anderson is secretary of the Western Heating & Sheet Metal Works, Salt Lake City, Utah, capitalized at $8,000.

The American Radiator Co. are moving their extensive establishment piecemeal from their old stand at Lake and Dearborn Sts., Chicago, to their palatial building, which they erected specially for their needs, at 284-286 Michigan Ave.

E. S. Berry, for many years with the Kelsey Heating Company of Syracuse, N. Y., is now associated with this company and has charge of their furnace department, and will furnish plans for heating residences, schools and churches on request.

The Chas. Smith Co., 122 Lake St., Chicago, manufacturers of the Hero furnace and a complete line of hot-water specialties, have been forced by the inadequacy of their shipping facilities to secure new and larger quarters, and after May 1st they will be located at Suite 202, Dukey Building., with entrances at 40 Dearborn and 101 Lake St.

C. H. Foster, 3403 Bell Av., St. Louis, Mo., sends us a little booklet devoted to "Foster's Registers." The Foster Special affords a pipe 9x13 inches when placed in 2x4 inch stud partition, and a pipe 7x13 inches when used in partition where studs are set the flat way. The Foster is the only warm air register made that deflects any portion of the air onto the floor, thereby possessing the convenience of a floor register, it is claimed. The Gem is a light, simple and cheap register. One of these booklets will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

The James Spear Stove & Heating Co., 1014-1016 Market St., Philadelphia, have recently refitted and decorated their offices and show rooms where they are carrying in stock complete samples of all the lines they manufacture, which include ranges for family, hotel and institution, laundry stoves and dryers, warm air heaters, hot water and steam heaters, stable stoves, nursery stoves, open grates and stoves, fireplace heaters, ranges for country and seashore, wood and coal heating stoves.

THE IDEAL FITTER.

The American Radiator Co., Lake and Dearborn streets, Chicago, send us a copy of the "Ideal Fitter" for 1904. This book is made of a convenient size for carrying in the pocket for handy reference, and illustrates not only the large assortment of Ideal steam and hot water boilers, tank heaters, American radiators and heating specialties shown in previous editions, but also several new types of goods. The book contains a revised and amended telegraphic code which is very complete and has been prepared with great care. It also contains a large number of tables of related data, which are inserted in the book with a view to assisting the dealer in quickly computing necessary mathematical calculations.

The line of boilers includes the Acme fire box, Invincible, Jr., steam, premier, return flue, portable, sectional 36 inch, sectional 30 inch, sectional 24 inch, sectional 21 inch, sectional 18 inch, sectional 12 inch, sectional coke No. 5, sectional coke No. 4, sectional coke No. 3, sectional coke No. 2 steam and hot water boilers. The radiators include 1, 2, 3 and 4 column circular radiators, colonial wall radiators, corner and curved radiators, dining room radiators, direct and indirect radiators, window radiators, stairway radiators, etc.

Other goods shown include galvanized steel storage tanks, Ideal automatic expansion tanks, plastic asbestos cement, asbestos magnesia molded covering, wool felt covering, quick opening steam radiator valves, screw stem steam corner valves, screw stem steam radiator valves, Q.-O. bonnetless water radiator valves, union elbows, straightway Q.-O. water radiator valves, screw stem brass globe valves, brass gate valves, brass check valves,, Ideal pressure regulating valves, Morgan improved vacuum valves, Libra automatic air valves, Imperial automatic air valves, Imperial lock shield automatic air valves, Powers' temperature regulators, Ideal hot water thermometers, Ideal steam gauges, Ideal automatic boiler feeders, Russell floor and ceiling plates, Ajax cold rolled steel plates, B. and C. floor and ceiling plates, O. S. distributers, Ideal radiator deflecting shields, Ideal bronze and bronzing liquids, etc.

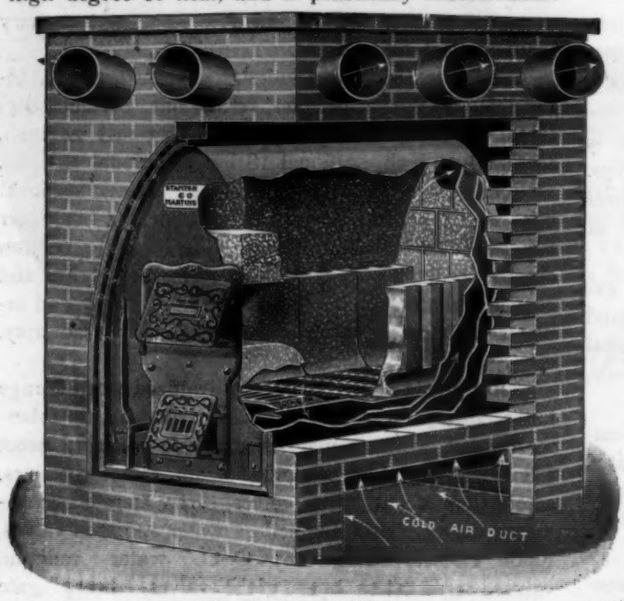
This book also contains a number of valuable tables and other data, including directions for ordering radiators, instructions in geometrical drawing, capacities for greenhouses and conservatories, area of circles, properties of saturated steam, measurements of valves

and elbows, expansion of wrought iron pipe, instructions for properly erecting coal, coke and wood burning sectional steam and water boilers, methods of cleaning a water gauge on a steam boiler without removal, removal of oil and grit from steam boiler, table of heat units and weight of water, table of square feet of radiating surface of pipe per lineal foot, capacities of wrought iron pipe, dimensions of standard wrought iron pipe, capacities and threads of standard wrought iron pipe, table of mains and branches, table of weights, measure of surfaces, measure of solidity, liquid measure, boiling points of various fluids, melting points of different metals, velocity of flow water, number of gallons in tanks, specific heat of bodies, heating and evaporative power of coals, chimney flues, etc. This valuable book will be sent to the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN.

THE STANTON SEAMLESS HEATER.

The Stanton Heater Co., Martin's Ferry, O., are manufacturers of the Stanton seamless heater shown herewith.

The radiating sheet in these heaters is one single piece of heavy, fire box sheet steel, same quality as used in locomotive fire boxes, made specially for fire-test purposes, and is capable of withstanding a very high degree of heat, and is practically indestructible.



Stanton Heater Buck Set.

The radiating sheet is bolted to a bed-plate of the same material, and the peculiar shape of the radiating sheet allows for expansion and contraction in the arch.

The heads or ends are made of the same material and are flanged outward at edges, while the radiating sheets are bolted to heads with heavy bolts placed three and one-half inches apart, well cemented with the best asbestos furnace cement. The heads are reinforced by a six-inch special fire-brick wall on inside, which serves as a protection, and also as a heat retainer and equalizer.

The grate bars are heavy, double oscillating, anti-clinker—are easily placed in position. They are made in sections, thus avoiding the necessity of replacing the entire grate if a single section burns out. The grate is easily shaken and cleaned.

The fire box walls are made of fire clay blocks specially shaped, and are placed upon cast iron ash box sides. These walls become hot and help to retain and equalize the heat. They can easily be replaced without tearing down the furnace.

All the hot gases pass to the extreme bottom of radiating sheet through especially arranged flues at each side of front end of fire box, and from front to rear at bottom of heater, between the ash-box sides and radiating sheet to the smoke exit, creating intense heat from top to bottom of furnace.

The outside casing sheet is made of heavy galvanized sheet steel. The inside casing is made of heavy sheet iron and extends from the bottom of heater to lower edge of warm-air pipes at top. The middle inside casing is made of heavy sheet iron and extends from lower edge of warm-air pipes at top to within 24 inches of bottom. This prevents heat from radiating into cellar or furnace room. The casing cap is also made double.

THE DRISKILL POST-HOLE AUGER.

The Driskill Post-Hole Auger Co., Inc., 703 North Sixth St., Paducah, Ky., are manufacturers of the Driskill post-hole auger, shown in the accompanying

The Driskill Post-Hole Auger.

cut. This is claimed to be the only adjustable post-hole auger on the market in which the bit or shaft or both can be adjusted in two seconds.

It will bore a post-hole in mud, dust, hard or soft soil in one minute, where it takes with other augers from 5 to 10 minutes to bore a hole in best of soil, it is claimed.

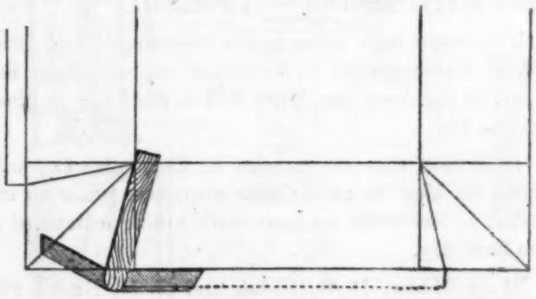
This auger is very simple in construction, the blades being of steel, and the handle is adjustable, so that there is no backache from a hard day's work with this auger, as the operator can, in a moment, adjust the handle to the most comfortable position.

This auger will enter any kind of soil without the least bit of pressure, and can easily be lifted from the hole in drawing out the earth.

Tinshop

DRIPPING PAN CORNERS

The following is claimed to be the quickest way of making dripping pan corners: Mark the required flare of pan; set bevel on this line and top line of



pan; turn bevel over and mark, and you have the desired point to cut to and on center line. Allow for wire.

CONFERENCE ON SHEET AND TIN PLATE SCALES.

At a conference held April 12 at Pittsburg between a committee of the Amalgamated Association of Iron, Steel and Tin Plate Workers, the officials of the American Sheet & Tin Plate Co. and independent sheet and tin plate manufacturers, the manufacturers proposed a settlement on the basis of 17½ per cent reduction in both the sheet and tin plate trades. At the session of the special convention of the Amalgamated Association April 13th a counter proposition was decided upon, calling for a 15 per cent reduction in sheet wages and a 12½ per cent reduction on the tin plate scale. The committee of the association is now in session with the manufacturers in the Frick building, that city, and the indications are now more favorable to an amicable settlement.

PRESSES, SHEARS AND PUNCHES.

The Niagara Machine & Tool Works, Buffalo, N. Y., send us an illustrated catalogue devoted to their line of power shears, presses, punches, can makers' tools, etc. The Niagara power squaring shears are cut fully the lengths given, and overrun about one inch. There is an automatic-working hold-down in front of the cutter bar which holds the sheet firmly while it is being cut.

The shears are furnished with a set of front, back, bevel and side gauges. The knives are made of high-grade steel welded to iron, carefully tempered and ground perfectly true by means of specially constructed grinding machines. The bed is marked with a graduate scale divided into sixteenths of an inch. The eccentrics and connections are readily adjusted to compensate for wear on the knives. The motion of the cutter bar is controlled by the Niagara shear clutch.

The Niagara power gap shears are made on modern lines. The open throat in the housings gives the advantage that sheets of any length can be trimmed and cut apart up to 15 inches from the edge.

The Niagara hand and power circle shears are intended for cutting round discs of light sheet metal.

The Niagara power circle and slitting shears are adapted to slitting sheets of any length. The cutting heads are strong and rigid and are provided with a planed guide that can be readily set for strips of various widths. The bed is heavy and well supported. The clamping plate for holding the sheet is set down instantly by means of an eccentric lever. A few other of the tools shown include Niagara ring and circle shears, Niagara gang slitters, Niagara inclinable power presses, bench power presses, Niagara double crank presses, Niagara pendulum foot presses, Niagara screw presses, Niagara poppet drop press, automatic curve elbow shears, Niagara gutter former and header, Niagara duplex folding machine, Niagara bail hook former, power crimping machine, Niagara power double seamers, and Niagara automatic trimming, beading and screw machine. One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

INTERESTING BOOKLETS FREE.

W. C. Cronemeyer, advertising agent of the American Sheet & Tin Plate Co., with headquarters at 310 Carnegie Bldg., Pittsburgh, is sending out some booklets offering valuable information to persons engaged in the metal and building trades. One of these booklets contains a brief history of iron and its application to roofing and traces the manufacturer of roofing tin from early days to the present time. It also fully describes how to construct a roof and also contains much valuable tabulated information useful to every person interested in the building trades.

Their other booklet contains fine illustrations of several sheet mills of this company; also tables showing the weights of sheets in bundles of standard sizes of galvanized sheets, Wood's refined sheets, Wood's patent planished iron and corrugated sheets, etc. The trade should certainly write for these valuable books. When writing kindly add: "Saw it in THE AMERICAN ARTISAN."

NOTES AND QUERIES.

NATURAL GAS STOVES.

From G. H. Eaton, Chautauqua, Kans.

Where can I buy natural gas stoves?

Ans.—Lattimer Williams Co., Columbus, O.; Germer Stove Co., Erie, Pa., The Wm. Resor & Co., Cincinnati, O.; Wm. M. Crane & Co., New York, N. Y.; F. & L. Kahn & Bro., Hamilton, O.; Gem City Stove Co., Dayton, O.; Favorite Stove & Range Co., Piqua, O.; Jewett & Co., 93 Perry street, Buffalo, N. Y.; Pittsburgh Stove & Range Co., Pittsburgh, Pa.; Peerless Stove & Range Co., 44 W. Naghten street, Columbus, O.

SHOVELS.

From Marion Stove Co., Marion Ia.

Who manufactures shovels?

Ans.—Avery Stamping Co., Cleveland, O.; Beall Shovel Co., Alton, Ill.; Hubbard & Co., Pittsburgh, Pa.; Iron Clad Mfg. Co., New York, N. Y.; F. E. Kohler, Canton, Ohio; John Pfeifer & Co., 222 Race

street, Philadelphia, Pa.; Star Shovel & Range Co., Vincennes, Ind.; Wood Shovel & Tool Co., Piqua, O.

COAL HODS.

From Marion Stove Co., Marion Ia.

Who manufactures coal hods?

Ans.—Fred T. Brosi Co., Quincy, Ill.; Dover Stamping & Mfg. Co., Cambridge, Mass.; Iron Clad Mfg. Co., Brooklyn, N. Y.; National Enameling & Stamping Co., Milwaukee, Wis.; John Pfeifer & Co., 222 Race street, Philadelphia, Pa.; Sidney Shepard & Co., Buffalo, N. Y.; Sturges & Burn Mfg. Co., Chicago, Ill.

KNITTING MACHINES.

From Noll & Co., Chilton, Wis.

Where can we buy knitting machines?

Ans.—H. Brinton & Co., 213 Race St., Philadelphia, Pa.; Campbell & Clute, Cohoes, N. Y.; Champion Machine Co., Diamond and N. Amer. Sts., Philadelphia, Pa.; Chas. Cooper, Bennington, Vt.; Crane Mfg. Co., Lakeport, N. H.; J. W. Hepworth & Co., Philadelphia, Pa.; Household Sewing Machine Co., 9 E. 14th St., New York; Loyal T. Ives, New Brunswick, N. J.; Lamb Mfg. Co., Chicopee Falls, Mass.; Leighton Machine Co., Manchester, N. H.; Mayo Knitting Machine & Needle Co., Franklin, N. H.; Arthur Mueller, 760 Lexington Ave., Brooklyn, N. Y.; National Automatic Knitter Co., 728 Cherry St., Philadelphia, Pa.; Nye & Tredick, 606 Arch St., Philadelphia, Pa.; Scott & Williams, Philadelphia, Pa.; Stafford & Holt, Little Falls, N. Y.; Trump Bros. Machine Co., Beech St., Wilmington, Del.; A. Wrightson, 2000 No. Second St., Philadelphia, Pa.

NICHOLS SQUARE AND MITRE BOX.

From G. W. Forbes, Brooklyn, Wis.

Who makes the Nichols square and the Nichols mitre box?

Ans.—Nichols Mfg. Co., Ottumwa, Ia.

LIGHTNING RODS.

From Brown & Helt, Fremont, Neb.

Would like addresses of manufacturers of lightning-rod supplies.

Ans.—Cole Bros., Inc., 412 S. Seventh St., St. Louis, Mo.; Dodd & Struthers, Des Moines, Iowa; E. O. Foy Co., 643 Main St., Cincinnati, Ohio; Hum & Leatherman, Pittsburg, Pa.; Maher & Son, Preston, Ia.; Omaha Lightning Rod & Electric Co., 1512 Webster St., Omaha, Nebr.; Reyburn, Hunter & Co., Philadelphia, Pa.; Security Lightning Rod Co., Burlington, Wis.; St. Louis Lightning Rod Co., 1901 S. Third St., St. Louis, Mo.; E. G. Washburn & Co., 46 Cortlandt St., New York, N. Y.

ITEMS.

David Anderson is a new Ironton, Ohio, tinner.

W. W. Williams has accepted a position as tinner for Stevenson & McCullough at College Springs, Iowa.

The Shenango & Greer plants of the American Tin Plate Co., New Castle, Pa., resumed work on April 4th last.

The Atlas Metal Works are a new Dallas, Tex., concern, capitalized at $25,000, for organizing a plant for working sheet metal.

The Carnahan Tin Plate & Sheet Co., Canton, Ohio, have made a recent increase in their capital stock from $300,000 to $500,000.

R. C. Konlitz and N. T. Henderson are the incorporators of the Aluminum & Bronze Coating Co., located at 1174 Hamilton St., Cleveland, O.

The recent high water in the Neshannock and Shenango rivers caused a temporary shut-down in the plant of the American Sheet & Tin Plate Co. at New Castle, Pa.

It is said that the tinners of Dubuque, Ia., will strike on May 1st unless their employers grant an increase of five cents an hour, with a nine instead of a ten hour day.

M. J. Moore, D. D. Fisher and G. N. Brown are the incorporators of the General Roofing Mfg. Co., East St. Louis, Ill., capitalized at $10,000, for the manufacture of roofing goods.

The Griffin & Lambert Co. and George F. Boehme, St. Paul, Minn., have consolidated their roofing, cornice and sheet metal business and will continue same under the style of Griffin & Boehme.

N. London, 101 Beekman St., New York, dealer and importer of scrap iron and steel, antimony, nickel, etc., will move his office and store house to more spacious quarters at 31 Peck Slip, New York.

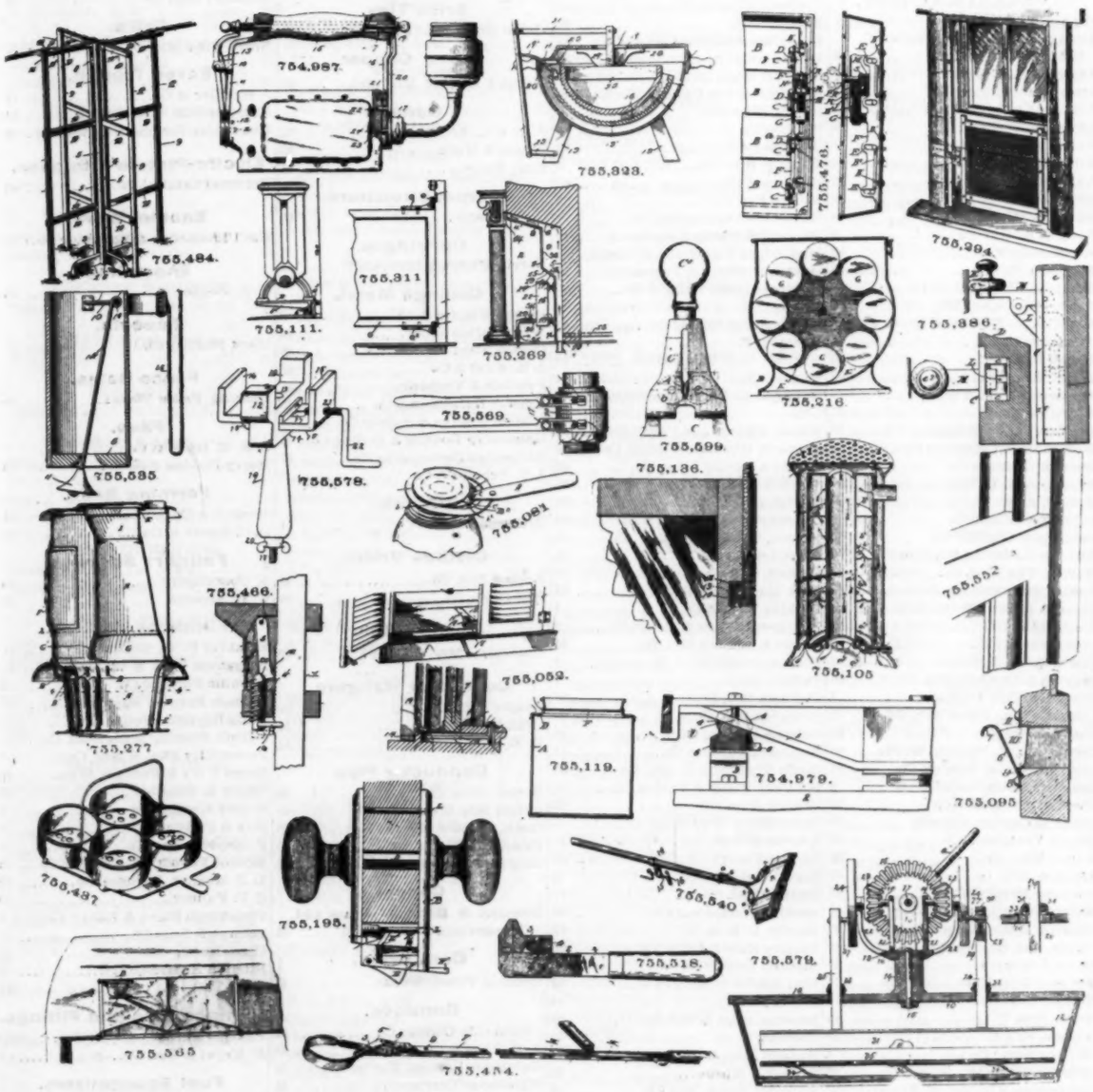
Joseph Hitz, Emma L. Brunckhow and Louis Guenther are the incorporators of the C. G. Brunckhow Co., Providence, R. I., for the manufacture of copper and galvanized cornices, conductor pipe, eaves trough, etc.

The tinners employed in the different hardware stores in Kewanee, Ill., struck on April 7th last. They made a demand that the employers should hire helpers for a term of four years, to which the latter objected.

Thomas Allen died April 9th at his residence, 44 East Fiftieth St., Chicago, in the 67th year of his age. He was the founder and for many years was president of Allen's Cornice & Corrugating Works of that city. He retired from active business a year ago. He leaves a widow. The funeral was held at 2 p. m. April 10th.

The five story plant of the White Mfg. Co., 196-198 Michigan street, manufacturers of plumbers' supplies, was destroyed by fire on April 13th last at a loss of $50,000. In a recent interview of this company, expressed the belief that the fire was of incendiary origin. "I am reluctant to admit it, but I do not see how it could have started otherwise," he said. "There was no explosives in the building. We are allowed to keep only five gallons of gasoline, and all of the supply was used this morning. Many of the strikers are foreigners and revengeful." This opinion was corroborated by other members of the firm. "I saw three strike pickets skulking about the building this afternoon," declared Timekeeper J. B. Wilson. "I believe the fire was started by them."

NEW PATENTS.



755,578—Wrench and clamp combined. Alonzo L. Nicholson, Rockwell City, Iowa.

755,518—Wrench. G. Moore, Shippingport, Pa.

755,294—Window screen. L.Goetz,Hagerstown, Md.

755,552—Weather strip for windows. James T. Roberts, Claremont, Colo.

755,466—Ratchet wrench. John H. Dundon, Youngstown, O.

755,386—Door check. Edward J. Passino, Middletown, N. Y.

755,484—Clothes horse. W.Hargrove, Montreal,Can.

755,269—Heating apparatus. Ernest H. Bennett, East Orange, N. J.

755,277—Heating stove. Peter J. Coppens, Grand Rapids, Mich.

755,476—Register. J. Finnegan, Philadelphia, Pa.

755,216—Ice cream freezer. J.W. Carrier, Peoria, Ill.

755,454—Clinker tongs. Charles Clear, St. Louis.

755,195—Lock. H. G. Voigt, New Britain, Conn.

754,987—Sad iron. Henry C. Fox, Louisville, Ky.

755,565—Ventilator. William P. Cosper, Chicago.

755,569—Ratchet wrench. Gus Freeland, Denver.

755,311—Hinged support for window sash. Fremont D. Palmer, Norwich, Conn.

755,535—Well bucket. Olen Pierre, Husser, La.

755,540—Combined brush and mop holder. Harry G. Price, South Bend, Ind.

755,599—Knife sharpener. Fred H. Smith, Oak Park, and David C. Sasseman, Chicago, Ill.

755,105—Stove. Henry H. Brown, Washington Courthouse, O.

754,979—Transom side bearing. Max Dorn, St. Louis, Mo.

755,095—Ventilator. Frederick G. Yawman, Rochester, N. Y.

755,111—Radiator support. G. H. Colton, Hiram, O.

755,323—Washing machine. Louis W. Smith, Anacortes, Wash.

755,579—Washing machine. Calvin S. Page, Des Moines, Ia.

755,437—Egg poacher. Julia A. Beury, Beury, W. Va.

755,136—Sash cord fastener. George W. Howard, New London, Conn.

755,081—Fruit jar wrench. W.A.Twining,Cleveland.

755,119—Can. E. Eckart, New Rochelle, N. Y.

755,052—Blind fastener. H.A.Schmidt, Phoebus,Va.

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PIG IRON.

An increased firmness in prices characterized the local pig iron situation all of last week, and predictions of a depression of prices have entirely vanished. There was a heavy inquiry for all grades, but very little contracting was done, and these inquiries are not regarded as at all indicative of the real strength of the demand.

The schedule of $10 Birmingham is very strong and will probably soon be raised. One dealer is reported to be out of the market at this price and to be asking $10.25.

Northern irons are strong and dealers expect more than $14 for No. 2. Stocks of pig iron are very low at present. This probably accounts for the holding up of prices in the presence of a light demand.

The United States Steel Corporation has notified the Mahoning and Shenango Valley furnaces that it will not make use of its option on 60,000 tons of pig iron secured recently, ordered at $13 per ton. It is believed that this option was secured in order to strengthen the iron market; and as this result has not materialized, the steel corporation withdrew its offer and has announced that it is in a position to make its own pig iron. This action will probably work havoc with the iron ore pool, and though a meeting of this body has been announced for April 19, it is very doubtful whether the different interests will get together.

IRON AND STEEL BARS.

Though neither of these commodities have sold very heavily during the past week, specifications have been made in abundance. Steel bars are still very firm and there will doubtless be an advance in the near future. Bar iron is a little weaker, but, though there has been some talk of shading the price of 1.50c, it is believed that the old schedule will be maintained. Hoops are comparatively quiet but firm.

We continue to quote on carload lots, mill shipments, Chicago delivery: Bar iron, 1.45c to 1.50c half extras; soft steel bars, 1.51½c half extras, with 5c to 10c per 100 pounds extra for less than a carload lot and with the regular extras for less than a ton of a size; angles, less than 3x3, 1.56½c base, half extras; hoops, 1.56½c full extras. On lots from store, we quote iron, 1.65c; steel, 1.75c base; hoops, 2.10c rates.

SHEETS.

Prices are very ragged and no one schedule is maintained, though many and large orders have been received. Quotations are being shaded 2.50c a ton in some cases, but no two sellers can agree as to any fixed scale.

We quote the official prices of the leading producer on carload lots, Chicago delivery, though the buyer may shade them from $1 to $2 a ton, according to the size of the order and his desire for prompt shipment. One pass, cold rolled, black sheets, Nos. 16 and 17, 2.16½c; Nos. 18 and 21, 2.21½c; Nos. 22 and 24, 2.26½c; Nos. 25 and 26, 2.31½c; No. 27, 2.36½c; No. 28, 2.46½c; No. 29, 2.76½c; No. 30, 2.86½c. Galvanized sheets, carload lots, mill shipment, Chicago delivery: Nos. 16 and 17, 2.56½c; No. 18 and 21, 2.71½c; Nos. 22 and 24, 2.86½c; Nos. 25 and 26, 3.06½c; No. 27, 3.26½c; No. 28, 3.46½c; No. 29, 3.86½c; No. 30, 4.26½c. On small lots from store, we quote black sheets as follows: Nos. 8 and 10, 2.15c to 2.20c; No. 12, 2.20c to 2.25c; No. 14, 2.30c to 2.35c; No. 16, 2.40c to 2.45c; Nos. 18 and 20, 2.50c to 2.55c; Nos. 22 and 24, 2.55c to 2.60c; No. 26, 2.65c to 2.70c; No. 27, 2.75c to 2.80c; No. 28, 2.80c to 2.85c; No. 29, 2.95c to 3c; No. 30, 3.10c to 3.25c. Galvanized, 75 and 7½ per cent.

STRUCTURAL STEEL.

Small buildings are commencing to engage the attention of warehouses and yards to a great extent, though so far there have been few large undertakings to note. The orders have aggregated quite a considerable tonnage, however, and the market is not to be classified as dull. Mill business has not shown up well, and specifications are not numerous. Prices are unchanged, and we quote carload lots, will shipments, Chicago delivery, as follows: Beams and channels, 16 inches and under, 1.76½c; 18 inches and over, 1.86½c; universal plates, 1.76½c; angles, 3x3 and larger, 1.81½c; zees, 1.76½c. On lots from store, we quote beams, channels and angles, 3x3 and larger, 2c; 18, 20 and 24 inch, 10c extra; tees, 2.05c rates.

MERCHANT STEEL.

The demand is brisk and the outlook bright. Makers of agricultural implements are buying very heavily, apparently laying in a supply for future use. Specifiations are in abundance. Prices are without change, and we quote carload lots, mill shipments, Chicago delivery, as follows: Spring steel, 2c; sleigh shoe, flat sizes, 1.56½c; concave and convex, 1.76½c; cutter shoe, 2.25c; smooth finished machinery steel, 1.76½c base; smooth finished tire, 1.71½c; plow steel, 2.30c and upwards, according to quality; toe calk, 2.06½c base. Ordinary grades of crucible tool steel, 6½@8c; special tool steel, 12c and up. Cold rolled shafting, 52 per cent from list in carload lots, and 47 per cent discount in less than car lots.

BILLETS.

This market is rather active and orders have been plentiful. There seems to be a sentiment prevalent among producers favoring a raise in price at the April meeting of the association. We quote Bessemer and open-hearth billets, 4x4 and larger, up to .25 carbon, $24; up to and including .60 carbon, $1 extra; over .60 carbon, $2 extra. Axle and forging billets smaller than 4x4, $25 Chicago. Open-hearth billets from store, $1.30 per 100 lbs.

STRUCTURAL MATERIAL.

Beyond a contract closed for 1,000 tons of steel shapes, and a few small orders, nothing aroused interest in this market.

Prices are unchanged, and we quote carload lots, mill shipments, Chicago delivery, as follows: Beams and channels, 16 inches and under, 1.76½c; 18 inches and over, 1.86½c; universal plates, 1.76½c; angles, 3x3 and larger, 1.81½c; zees, 1.76½c. On lots from store, we quote beams, channels and angles, 3x3 and larger, 2c; 18, 20 and 24-inch, 10c extra; tees, 2.05c rates.

SHEET ZINC.

Sheet zinc is quoted per cwt. base as follows: 600-lb. casks, $6.35; 300-lb. casks, $6.55; sheets, $6.60.

CARRIERS.

Hay carriers are quoted as follows: Myers Imperial, $3.50 each; Myers Clover Leaf, $3.50 each.

CHAIN AND CHAINS.

Chain and chains are quoted as follows per dozen pairs: Breat chains, double slack, $5.75; with covert snaps, $5.00; with slide, $3.25; without slide, $2.85. Bright ox chains, 5-16 inches, $5.65 per 100 lbs.; ⅜ inch, $4.40 per 100 lbs. Cable coil chain, 3-16 in., $8.90 per 100 lbs.; ¼ in., $6.60 per 100 lbs; 5-16 in., $5.30 per 100 lbs.; ⅜ in., $4.40 per 100 lbs.; 7-16 in., $4.20 per 100 lbs.; ½ in., $4.00 per 100 lbs.; ⅝ in., $3.85 per 100 lbs.; ¾ in., $3.75 per 100 lbs.; ⅞ in., $3.65 per 100 lbs.; 1-1-¼ in., $3.65 per 100 lbs. Cable log chains advance 35c per 100 lbs. on cable coil. Cow tie chains are quoted as follows: American 2 toggle, 50 per cent off; American toggle and snap, 50 per cent off; American open and closed ring, 50 per cent off. Stretcher chains are quoted as follows per 100 lbs.: 5-16 in., $8.50; ⅜ in., $7.75. Wagon stay chains are quoted as follows: ¼ in., $6.50 per 100 lbs.; 5-16 in., $6.00 per 100 lbs.; ⅜ in., $5.50 per 100 lbs.

COTTERS.

Spring cotters, all sizes, new list, are 85 and 20 per cent off list.

WIRE NAILS.

The demand has decreased to a great extent during the past two weeks, due probably to the unfavorable weather conditions in the West. The mills are so far behind in the orders, however, that any cessation is received rather gratefully. Quotations follow: Carload lots to retailers, $2.15 per 100 lbs.; less than carloads, $2.25 per 100 lbs., f. o. b. Chicago.

CUT NAILS.

Prices are at a rate now where users can use the nail which best suits their purpose, and the iron nail seems to be increasing in demand rather than the wire. Prices are unchanged.

BARB WIRE.

The floods in the West will undoubtedly cause a great amount of damage in the barb wire line, and will recreate a demand which at the present time seems to be slackening up a bit. Prices are unchanged.

SMOOTH FENCE WIRE.

Prices are unchanged, and, though the mills are not receiving a great number of orders, what has been said about barb wire will doubtless affect the smooth fence market likewise.

FREEZERS.

The outlook for a good season in this line is excellent, and the agreement between the large manufacturers seems to be working admirably. Prices are a little higher than last year, but this is to be attributed to the high prices prevailing for lumber. Quotations will be found in hardware reports.

COPPER.

Copper is quiet, though prices are higher, the quotation yesterday being 13¼@13½c for lake, 13⅛@13¼c for electrolytic and 13@13⅛c for casting. The London closing was cabled quiet. Standard copper, spot, £58 10s; futures, £58 2s 6d.

The Copper Manufacturers' Association quotes manufactured copper very firm but still unchanged, on a basis of 18c per lb. for sheets and bars. Yellow sheathing material is quoted on a basis of 15c.

PIG TIN.

Pig tin is easier, the New York quotation being 27⅞@28⅛c for spot, 27¾@28⅛c for April. The closing in London was cabled firm at £127 for spot and £127 for futures.

TIN PLATES.

Tin plates are steady and unchanged at jobbing prices: Melyn, $6.50@7; Alloway, $5.75@6.25; coke, $4.87½@6.50; ternes, $5.25@8; additional X, $1.50@1.75 more.

LEAD.

There is a firm market for pig lead, the Smelters' Association still quoting 4.50c for 50-ton lots in New York, and 4.57½c for 25-ton lots, both for future shipment. Spot lots are firm at 4.60@4.65c in New York. The London quotation is £12 7s 6d. St. Louis is easier at 4.40@4.42½c.

Manufactured lead is firm at: Lead pipe, 6½c; sheet, 7¼c; tin pipe, 45c; tin-lined pipe, 12½c; old lead in exchange, 3¾c; tea lead, 3¼c.

SPELTER.

Spelter is higher at: Round lots, New York, 5.25@5.30c for spot and April.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x14	$10 25
IC	14x20	6 75
IX	14x20	8 00
IXX	14x20	9 20
IXXX	14x20	11 60
IXXXX	14x20	12 85
IC	20x28	13 50
IX	20x28	16 00
IXX	20x28	18 40
IXXX	20x28	20 80
IXXXX	20x28	23 20

COKE PLATES.

Cokes, 180 lbs	IC	20x28	8 50
Cokes, 200 lbs	IC	20x28	8 80
Cokes, 216 lbs	IC	20x28	9 10
Cokes, 216 lbs	IX	20x28	11 10

PIG IRON.

Lake Sup. Charcoal	$15 00@$15 50
Local Coke Fdy No. 1	14 25@ 14 50
Local Coke Fdy No. 2	14 00@ 14 25
Local Coke Fdy No. 3	13 50@ 14 00
Local Scotch Fdy No. 1	14 50@ 14 75
Ohio Strong Softeners, No. 1	15 30@ 15 80
Southern Silvery	14 85@ 15 35
Southern Coke No. 1	14 35
Southern Coke No. 2	13 85
Southern Coke No. 3	13 35
Southern Coke No. 4	12 85
Southern No. 1 Soft	14 35
Southern No. 2 Soft	13 85
Alabama Car Wheel	18 85@ 19 00
Malleable Bessemer	14 00@ 14 50
Jackson Co. Silvery	17 80@ 18 30

BLACK SHEET STEEL.

No. 16	per 100 lbs.	$2 55
No. 18-20	per 100 lbs.	2 60
No. 22-24	per 100 lbs.	2 65
No. 25-26	per 100 lbs.	2 70
No. 27	per 100 lbs.	2 75
No. 28	per 100 lbs.	2 85
No. 29	per 100 lbs.	3 15

POLISHED SHEET STEEL.

No. 24 per 100 lbs.	$4.90
No. 26 " "	$5.00
No. 27 " "	$5.10
No. 28 " "	$5.20

SMOOTH STEEL.

Wood's Smooth	No. 15-17	3 85
" "	No. 18	3 95
" "	No. 20	3 85
" "	No. 22-24	3 85
" "	No. 25-26	3 05
" "	No. 27	3 15
" "	No. 28	3 25

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

GALVANIZED IRON

F.O.B. Chicago ..... 75 & 5%

HOOP IRON.

¾x22	¾x20	¾x20
$2 70 100lbs.	$2 60 100lbs.	$2 50 100lbs.
1x20	1¼x19	1½x19
$3 40 100lbs.	$2 35 100lbs.	$2 25 100lbs.

PAINTED CORRUGATED IRON.

8 x 2½ feet Sheets, 28 gage, per 100 lbs. $3 60

SOLDER.

XXX Guaranteed ¼&½ per lb.	20¼c
Commercial ¼&½ per lb.	19 c
No. 1 Plumbers	17¾c

SHEET ZINC.

600 lb. Casks ..... base, per cwt.	$6.35
300 lb. Casks ..... per cwt.	6.55
Sheets ..... per cwt.	6.60

COPPER.

Copper ..... base, 21c

TIN PIGS AND BARS.

Banca, pigs, per lb	35@35½c
Straits pigs, per lb	35c
Straits in bars, per lb	37c

LEAD.

American Pig	$4 60@4 62½c
Bar	6¼
National (White) brands (in less than 100 lb. lots) per lb	7½

HARDWARE.

ADZES.

Carpenters'.
- Ajax 40%
- Blood's ..... 40&5%
- Hunt's 35%
- White's 12½%

Coopers'.
- Barton's 20%
- White's 15%

Ship.
- Ajax 50%
- Blood's ..... 40&5%
- Hunt's 25%
- White's 12½%

AMMUNITION.

Caps, Percussion—per 1,000.
- F L Waterproof, 1-10s 40c
- G D 35c
- Eley's 52c

Cartridges.
- Peters Rim Fire Ctgs ..... 50&3%
- Peters Cent Fire, Pistol & Rifle 25&3%
- Peters Cent Fire, Military and Sporting Ctgs ..... 15&8%
- Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.
- Peters Blank Ctgs. 22 cal $1 18
- Peters Blank Ctgs. 32 cal., C. F. .. 4 40
- Peters B B Caps, Round ball $1 44
- Peters B B Caps, Conical ball ... $1 85
- Winchester Cent. Fire, Military and Sporting Ctgs ..... 15&8%
- U. M. C. B B Caps, Con. Ball. $1 85 net
- U. M. C. Rim Fire Shot Ctgs. 50&15&3%
- U. M. C. Cent. " " " 35&15&3%

Primers.
- Berdan Primers $1 00
- Peters Primers 1 20
- Winchester Primers 1 20

Shells.
- Peters Empty Paper Shells, 10 and 12 gauge. League ..... 25&2%
- Peters Empty Paper Shells, 16 gauge. League ..... 20&2%
- Peters New Victor Nitro Shls .. 20&2%
- Ideal ..... 25&7%
- Peters Loaded Shells. League and Referee Semi-Smokeless. 40&1%
- Peters New Victor Loaded Shells with King's Smokeless ..... 40&6%
- Ideals Loaded with King's Smokeless ..... 40&10&10&1%
- Winchester Blue Rivals ..... } 40&1%
- Winchester Yellow Rivals ..... }
- Winchester Repeater ..... 20&2%
- Winchester Leader ..... 40&6%
- U. M. C. Loaded Shells, Black Powder ..... } 40&1% full cases
- Winchester Loaded Shells, Black Powder ..... }

Gun Wads—per 1,000.
- Peters Gun Wads 18%
- U. M. C. Gun Wads 18%

Powder.

		Each
King's Smokeless,	kegs	$11 30
" "	½ kegs	5 80
" "	¼ kegs	2 97
" "	1-lb. cans	51
" "	1-lb. " rifle	70
Dupont's "	50-lb. drum	22 45
" "	25-lb. kegs	11 30
" "	12½-lb. kegs	5 80
" "	6¼-lb. kegs	2 97
" "	1-lb. cans	51

Shot.
- Dropshot, sizes smaller than B, 25-lb. bags, per bag $1 60
- Drop shot, B and larger sizes, 25-lb. bags, per bag 1 85
- Buck Shot, 25-lb. bags, per bag .. 1 85
- Chilled Shot, 25-lb. bags, per bag. 1 85

ANVILS.

Trenton, 70 to 80 lbs	9¾c per lb
Trenton, 81 to 150 lbs	9c per lb

AUGERS.

Boring Machine ..... 60&10&5%
Carpenters' Nut ..... 60&10&5%
Hollow: Ives' New Pattern 25%
- Bonney's—list $30.00 ..... 75&5%
- Stearn's, No. 1 ..... doz. $42 00
- Stearn's, No. 3 ..... " 33 50

Post Hole.
- Dalbey, 8-inch ..... per doz. $ 5 75
- Digwell, 8-inch ..... " 13 00
- Howe's, 6 and 8-inch .. " 11 00
- Iwan's Improved ..... 40 & 5%
- Vaughan's, 4 to 9-inch per doz. 6 50

Rafting.
- Snell's ..... 50&5%

Ship.
- Ford's, with or without screw, 40-5%
- Snell's, " " " 40-5%

AWLS.

Brad, handled ..... per doz. $0 28
- shouldered, ass'd, 1 to 4 ..... per gr. 95
- patent, asst'd, 1 to 4 " 90

Harness, common ..... " 1 10
- patent ..... " 90

Peg, shouldered ..... " 95
- patent ..... " 40

Scratch, No. 3, handled ..... " 4 40
- No. 1, socket handled ..... per doz. 1 15
- No. 20 Hurwood " 2 00

Sewing, common ..... per gr. 90
- patent ..... " 90

AXES.

Boys', Handled:
- Camp Fire, 3-lb., per doz $5 75
- " " 4-lb., freighters', per doz 6 75
- Cast Steel, good grade, pr. dz., 5 50
- Pioneer, per doz 6 75

Broad:
- Peerless 40%
- Red Warrior, per doz 40%

Firemen's, per doz 14 50

Single Bitted (without handles)

Gladstone,	per doz 3 to 4 lbs	$8 50
Hubbard's cone,	" "	6 75
Hunt's	" "	6 75
Lippincott's	" "	6 75
Mann's	" "	6 75
Pioneer	" "	7 25
U. S. A.	" "	9 00
Valley Forge	" "	6 75
Second Quality	" "	6 50
Maricopa	" "	

The above price of 3 to 4 lbs. is the base price.
3½ to 4½ lbs. advance 25c.
4 to 5 lbs. advance 50c.
4½ to 5½ advance 75c.

Double Bitted (without handles):
- Lippincott's 3 to 4 lbs per doz $9 50
- Mann's " " " 9 50
- Pioneer " " " 9 25
- U. S. A. " " " 11 00
- Valley Forge " " " 9 50

The above price of 3 to 4 lbs. is the base price.
3½ to 4½ lbs advance 25c.
4 to 5 lbs. advance 50c.
4½ to 5½ lb. advance 75c.

BALANCES, SPRING.

Frary's	50%
Pelouze	20%

BAGS, PAPER NAIL.

Pounds .. 3 5 10 16 20 25
Per 1,000. $1 60 1 85 2 60 3 40 3 90 4 75

BARS, CROW.

Pinch or Wedge Point ..... cwt. $2 95

BEAMS—SCALE.

P. S. & W. Co 40%

BEATERS.

Carpet, Rattan ..... per doz $2 40
- Raymond's Steel Wire, " " 80
- Woven Wire, No. 4 .. " " 1 10

Egg.
- Dover Pattern ..... per doz. $0 70
- Genuine Dover ..... " 0 90
- Mammoth Dover ..... " 1 75
- Lightning ..... " 0 84
- Lyon's (standard size) " 1 75
- Whip, French ..... " 1 35
- Spiral ..... " 0 40
- Spoon ..... " 0 40
- Surprise ..... per gro. 1 45

BELLOWS.

Blacksmiths' ..... 70&5%
Hand, 8 in ..... per doz. $ 6 85
- 10 in ..... " 8 40

Molders', 12 in ..... per doz. 13 00

BELLS.

Call.
- 2¾ in. nickeled bell . per doz. $ 1 35
- 2¾ in. " brass bell " 3 60
- 3 in. " " " " 7 50
- 3 in. " silver alloy bell, ... per doz. 16 50
- 4½ in. " brass bell and base ..... per doz. 14 50

Cow.
- Ordinary Goods ..... 70&5%
- High Grade ..... 60&10%
- Jersey ..... 70&10%

Door.
- Bigelow Automatic .. per doz. $9 50
- Rotary.
- 3 in. bronzed iron bell " 5 25
- 3 in. nickeled " " " 7 50
- 3½ in. " " " " 9 00

Hand.
- Hand Bells, Polished .... 60@60&10%
- White Metal 50%
- Nickel Plated 40%
- Swiss ..... 60&5%
- Silver Chime 33⅓%

Miscellaneous.
- Church and School, Steel Alloy, ... 50, 10 & 5%
- Farm, lbs ... 40 50 75 100
- Each. $1 10 $1 30 $1 85 $2 65

Miscellaneous Cont.
- Strapped Sheep ..... per doz. $1 90
- House Gong ..... 40&5%
- Sleigh, Round, Loose ..... 40&5%

BELTING

Leather—List dated Nov. 12, 1901.
- Standard 75%
- Eclipse ..... 60-10&5%
- Extra Grade ..... 50&10%

Rubber—
- Standard ..... 75&5%
- Amherst ..... 65&10%
- Extra ..... 60&2½%

BEVELS—TEE.

Stanley's, rosewood handle, new list ..... 40&5%
Stanley's Iron handle ..... 40&5%

BINDING—OIL CLOTH.

Zinc	75, & 10%
Brass	75%
Brass Plated	75 & 10%

Auger. BITS.
- Extra Double Spur ..... 70&10%
- Ford's Car and Machine .... 40&10%
- Ford's ..... 40&10%
- Ford's Ship ..... 40&5%
- Irwin 45%
- New Jenning's ..... 50&5%
- Russell Jenning's ..... 25&10%
- Clark's Expansive ..... 50, 10&5%
- Steer's " Small ..... new list $22.00
- Irwin Car 45%
- Snell's Car ..... 60&5%
- " Ship ..... 40&5%
- Ford's " Auger Pattern Car .. 40&5%

Center ..... 40&10%

Countersink—
- Wheeler's ..... per doz. $1 30
- American Snail Head " 0 70
- " Rose " 0 80
- " Flat ..... " 0 70
- Buck Bros'. Flat ..... " 2 60
- German ..... " 0 70

Dowel, New Jennings ..... 40&10%

Gimlet—
- Standard Double Cut 50&5@50&10%
- German Pattern ..... per doz. $0 48
- Gouge ..... " 0 80
- Spoon ..... " 0 80
- Countersink ..... " 1 20

Reamer—
- Buck Bros.' ½ Round. " 2 75
- " " Square .. " 2 50
- Standard ¼ Round ... " 0 75
- " Square ..... " 0 75
- German Octagon ..... " 0 75

Screw Driver—
- Round Shank ..... " 0 48
- " " extra quality " 1 40
- Square Shank ..... " 1 10

BLACKING—STOVE. (See Polish.)

BLADES—SAW.

Butchers'—
- Standard ¾ & 1¼in ..... 60&5%
- Clock Spring ..... 60&5%
- Star 30%

Hack—
- Disston's ..... 25&5%
- Griffin's ..... 35&5%
- Star 30%

Wood—
- Jackson's ..... per doz. $2 25
- Disston—No. 6, 16, 26 & 045, $4 20; No. 11, $6.30.
- W. M. & Co.'s No. 20 .. per doz. $5 50

Snatch— BLOCKS.
- Wooden ..... 55&10%
- Steel ..... 40&10%

Tackle—
- Wooden ..... 70&5%
- Steel ..... 50, 10&5%

BOARDS.

Stove 40%

Wash—
- Anchor ..... per doz. $1 60
- Globe ..... " 2 10
- Banner ..... " 2 60
- Crystal ..... " 3 15
- Brass King ..... " 3 15
- Nickel Plate ..... " 3 15
- Enamel King ..... " 3 15

BOBS—PLUMB.

Carpenters', 8½ oz. iron .. pr dz. $0 65
- 1½ lb. " " " 1 60
- 2¾ lb. " " " 1 80
- 13 oz. lead ..... " 3 00
- 6½ oz. brass ..... " 3 30

Mason's, 3 lb. lead ..... " 4 00

BOILERS—FARM.

Profit	30&5%
Solon	35&5%

BOLTS.

Carriage, Machine, Etc.
- Carriage, ⅝x6 and sizes smaller and shorter 75%
- Carriage, sizes larger and longer than ⅝x6 ..... 75@10%
- Machine, ⅝x4 and sizes smaller and shorter ..... 75&5%
- Machine, sizes larger and longer than ⅝x4 ..... 75%
- Elevator ..... 50-10&5%
- Plow ..... 60&5%
- Stove ..... 75&10%
- Tire ..... 72½&5%
- Wagon Box Strap ..... 70&10%

Mortise Door—
- Gem ..... 50-10&5%
- Ives' ..... 50&10%

Barrel—
- Cast 50%
- Wrought ..... 50&5%
- " Bronzed ..... 75&5%

Plush, Wrought, B. K ..... 40&5%

Spring—
- Wrought ..... 75&10%
- " Brass ..... 75&10%

Square—
- Cast 40%
- Wrought ..... 60-10&10%

BORERS.

Angular, Miller's Falls, per doz $12 75

Bung, Common Ring with Handle—

Inches	1½	1¾	2
Per doz	$6 00	6 90	8 1

BORERS—CONTINUED.
Enterprise Mfg. Co., No. 1 List $1.50; No. 2, $2.00 each....25-10&5%

BOXES.
Mail, No........... 5 10 20
Per doz..........$3 65 10 50 13 00
Mitre—
New Langdon..................15&5%
Olmsted's 15%
Stanley's...........................30%
Seavey's ....per doz 8 00
Twine, Nos... 20 30 25 121
Per doz $1 50

BRACES.
Common Ball...............$1 35@1 45
Barbers' Pattern .... 50&10%
Fray's Gen. Spofford's..........50&10%
" No. 66 to 146.........50&10&7½%
P. S. & W. Co.'s Peck's Adjustable.........50-10&5%

BRACKETS.
Hay-Rack, Wenzelmann's No. 1, $12.60; No. 2, $13.20 per doz.
Shelf—
Cast Iron, Plain ....50&10%
Stanley's Wrought Steel....... ....70-10&2½%
Wire..................75-10&5%

BROILERS.
Wire ....70&10%
Crown, Self-Basting, No.80..doz. $2 90

BUCKETS.
Pump Rubber—
Wychoff..........per gr. $4 75
Cooper.......... " 5 50
Champion .... " 7 50
Victor .... " 9 50
Star.......... " 5 00
IXL.......... " 6 75
Well—
Galv'd Qts...... 8 10 12
Per doz $2 50 2 85 3 15
Wooden, top ear, plain, per doz 3 60
" " swivel " 4 85
" side-strap, plain " 3 70
" " swivel " 5 00

BUCKS, SAW.
Folding ....per doz $1 75

BURS, RIVETING.
Copper Burs Only..........35-10&5%
Tinners' Iron Burs Only..........70%

BUTTS.
Cast-Iron..........65&10%
Wrought Brass..........20%
Wrought Steel Bright—
Nos. 800, 804, 806, 810, 814 and 834 ....75&10%
Nos. 838, 840 and 842 .....75-10&10%
Nos. 822 and 823..........80-20&10%
Wrought Steel, Japanned—
Nos. 731 and 737..........70&10&10%

CALIPERS.
Double ....40&10%
Inside and Outside..........40&10%
Wing..........40&5%

CALKS.
Logger's Boot,(Lufkin R. Co's.) ....per M $3 65
Toe.
Shoenberger..........per lb. 5c
Bessemer .... " 5¼c
American .... " 7¼c
Swedes.......... " 8¾c

CANS.
Cheese Factory Can Stock—
Gallons.... 15 20 30 40
Per set....$3 40 $3 45 $3 70 $4 90
Milk
Elgin Pattern,
Nos.........808, 810, 88.
Gal. 8 10 8
per doz....$22.50 $22.75 $23.15
New Elgin Pattern,
Nos. 106 108 110
Gal. each, 5 8 10
Per doz., $16.75 $18.50 $19.85
Iowa Pattern.
Nos. 508 610
Gal. 8 10
Per doz. $21.50 $22.75
New York Pattern,
Nos. 908, 910,
Gal. each, 8 10
Per doz. $25.15 $26.95
Oil—
1 Gal. glass, Daisy....per doz. $2 35
1 " cushioned " 3 90
Star, gals...... 1 2 3
Per doz........ $1 85 $3 00 $3 90
Per doz.
Champion Faucet, 5 gallon...$ 5 65
Sterling Tilting....5 " ... 8 25
"High C" Pump...5 " ... 9 25
Eureka Pump.....5 " ... 12 25
Wood Jacket..........50-10&5%

CAPS—GUN.
See Ammunition.

CARRIERS.
Hay—
Myers' Imperial..........each $3 50
" Clover Leaf...... " 3 50

CARTRIDGES.
See Ammunition.

CASTERS.
Acme—Ball Bearing.............35%
Bed..........60, 10&5%
Common Plate—
Brass wheel..........60&10%
Iron and porcelain wheel.60, 10&5%
Philadelphia Plate..........70&5%
Martin's..........40-10&5%
Payson's..........70&10%
Tucker's—Wood &iron wheel..25&5%
" Rubber wheel......... 15%

CATCHERS—GRASS
Lieder's No. 1......per doz, $6 25
Eureka.......... " 4 25
deal No. 4.............. 50

CHAIN AND CHAINS.
Breast Chains—
Doubleslack.........doz. pairs $5 75
With Covert snaps " 5 00
" slide......... " 3 25
Without slide..... " 3 85
Bright Ox Chains—
5-16in. $5 65; ⅜in. $4 40 per 100 lbs.
Cable Coil Chain—
Inch.......... 3-16 ¼ 5-16 ⅜
Per 100 lbs....$8 90 $6 60 $5 30 $4 40
Inch .... 7-16 ½ ⅝ ¾
Per 100 lbs....$4 20 $4 00 $3 85 $3 75
Inch .... ⅞ 1 1¼
Per 100 lbs.... $3 65 $3 65 $3 65
Cable Log Chain—Advance 35c per 100 lbs. on Cable Coil.
Cow Tie Chains—
American 2 toggle.......... 50%
" toggle and snap... 50%
" open and closed ring.......... 50%
Halter Chains—
American, new list..........33⅓%
German..........60-10&5%
Niagara, new list..........40&5
Triumph, " 30%
Jack Chain—
Brass..........60%
Iron..........60%
Picture Chains—
Light Brass, 3 ft.......per doz. 63c
Heavy " 3 " .... " 75c
Pump Chain—Galvanized per 100 lbs.......... $4 75
Safety Chain—Brass..........60&10%
Stretcher Chains—
5-16 in., $8.50—⅜in., $7.75 per 100 lbs.
Tie-Out Chains—Browns.......70&10%
Trace Chains—Western Standard—
6½—6-2..........per pair 28c
6½—8-2.......... " 30c
6½—8-3.......... " 29c
6½—10-2.......... " 35c
7 —10-2.......... " 40c
Add 2c per pair for Hooks.
" 2c " for Twist Link
Wagon Stay Chains—
Inch ¼ 5-16 ⅜
Per 100 lbs. $6.50 $6.00 $5.10
Well Chains—
With Swivel.........per doz. 95c
Without " .... " 80c

CHALK-CARPENTERS'.
Blue..........per gross 58c
Red.......... " 48c
White.......... " 38c
Common White Sch'l Crayon.......... " 5½c

CHARCOAL.
In barrels ....per bu. 21c

CHECKS-DOOR.
Blount 30%
Blum-Jap'd, $6.25; Brzd., doz... $7.00
Columbia..........50, 10&5%

CHIMNEY TOPS.
Iwan's Volcano..........50%

CHISELS.
Box—
Inches.......... 10 12 14
Round....per doz. $2.10 $2.25 $2.75
Flat......per doz. 2.85 3.60 4.20
Cold—
Good quality......per lb. 12@ 20c
U.S.A.,extra quality..per lb. 28c
Socket, Framing and Firmer—
Barton's.......... 20%
P. S. & W. Co's.......... 70%
For beveled back, add..per doz.......... 60c
Tanged, Firmer—
P. S. & W. Co's..........35&5%
With Handles add....per doz. 60c
Choppers, Enterprise Meat—
No. 12..........$2 75
No. 22.......... 4 50

CHUCKS-DRILL.
Standard Tool Co.'s 40%
Goodell's, for Goodell's Screw Drivers..........per doz. $6.25
Yankee, for Yankee Screw Drivers.......... 5.00

CHURNS.
Anti-Bent Wood, Gal.. 5 7 10
Each $3.90 4.15 4.40
Belle, Barrel.......... 70&5%
Common Dash, Gal.... 4 5 7
Per doz.......... $7.25 7.75 8.25
Hero..........70%
Union, Gal.......... 5 7 10
Each $3.65 3.90 4.75

CLAMPS
Adjustable—Martin's 40%
Carpenters'—Steel Bar.......... 30%
Carriage Makers'—P. S. & W. Co.'s..........40, 10&5%
Hose—
Sherman's, brass, ¾ in., ...per doz. 33c
Double, brass, ¾ in...per doz. 65c
Saw Filers—
Disston's list, $30.00.......... 30%
Stearn's, No. 0, $3.50, No. 1, $11.50, No. 3, $5.50 doz.
Wentworth's.......... 40%

CLAWS-TACK.
Cast, wood hdle...per doz., 45@ 60c
Forged steel, wood handle ....per doz. 80c
Solid Steel..........per doz. $1.60
Giant..........per doz. .60

CLEANERS.
Drain—
Iwan's Adjustable..........50%
Iwan's Stationary..........40%
Pot—Wire..........per doz. $0.45
Side-Walk—Steel.....per doz. 3.15

XLCR..........65&5%

CLEAVERS.
Family—Ajax, In..... 6 7 8
Per doz $5.50 5.75 6.25

CLEVISES.
Malleable..........per lb. 3⅝c

CLIPS.
Axle..........65&5%
Damper—
Standard ....per doz. $0.70
Troy .... " .28
Hame.......... " .20

CLOTH.
Emery—
Ajax..........50&10%
B. & A..........50%
Hardware Wire—full rolls (100 ft.)
2 to 8 mesh black, per 100 sq. ft. $1.85
9 to 12 " " " " 2.15
2 to 8 " galv, " " 2.70
7 and 8 " " " " 3.25
An extra charge is made for 50 ft. lengths, and a still further advance for smaller pieces.
Screen Wire—
12 mesh, painted, per 100 sq.ft. $1.30
14 " " " " 1.85

COFFEE MILLS.
Enter. Mfg. Co., list Jan 17, '93...25%
Parker's..........50%
Arcade..........60&10%

COLLARS--STOVE PIPE.
Inches 5 6 7
Plain Tin....per gr.$2.50 $2.80 $3.75
Japanned Tin, " 3.90 4.20 5.40
Lacquered Brass" 3.20 3.60 4.80

COMBS--CURRY.
Nos. 000 20 321 330 417 416
Per doz.$0.32 .80 1.00 .95 .80 1.00
Nos. 531 533 580 535 545 390
Per doz.$0.96 1.20 1.10 1.65 1.40 1.30

COMPASSES.
Carpenter's.......... 70%
Pencil—Faber's..........per doz.$1.00

COOLERS--WATER.
Galvanized Lined—Lever Faucet.
Gal. 2 3 4 6 8
Each $1.35 1.65 2.00 2.35 2.95
Galvanized Lined—Telegraph Faucet
Gal. 2 3 4 6 8 10 15
Ea$1.65 2.00 2.35 2.65 3.20 3.65 4.90
Porcelain Lined—
Gal. 3 4 5 6 7 8 10
Ea$4.50 5.75 7.00 7.75 8.60 10.40 12.25

COPPER—SEE METALS.

COPPERS.
Soldering—1 to 2 lb.....per lb. 25@29c
3 lb. and larger..... " 23c

CORD.
Picture—White Wire—List October 1900..........60&10%
Sash—
Baltic Braided Flax...per lb. 22 c
India Hemp, cable laid " 13 c
" " hawser " " 12 c
" " plain " " 13½c
Italian " cable " " 21½c
Russian " " " " 17 c
Samson, white " 31½c
" spot " 30½c
Silver Lake, white " 32 c
" " drab " 29 c

CORKSCREWS.
Humason & Beckley..........33⅓%
Walker's..........33⅓%
Williamson's Regular..........50%
Williamson's Forged Worm.....50%

COTTERS--SPRING.
All sizes—new list.......... 85&10%

COUPLINGS--HOSE.
Brass ....per doz. $1.00
Brass Plated.......... " 85

COVERS, WAGON--SEE TENTS.

CRADLES--GRAIN.
Morgan's Grapevine ..per doz.$22 25

CRAYONS--SEE CHALK.

CROOKS--SHEPHERDS'.
American Pattern .....per doz. $6 75
Montana " ..... " 8 00
Scotland " ..... " 8 00

CROW BARS.
Pinch or Wedge Point, per 100 lbs $3 40

CUTTERS.
Meat—
Enterprise Nos. 5, 10, 12, 22, 32, and 42..........25%
No. 100, list, $18.00..........40&10%
Nos. 2 and 4..........35%
Ideal..........per doz. $9.75
Universal....No. 1 2 3
Per doz..........$10.75 $13.00 $18.00
Pipe-Stanwoods No. 1 2 3
Each..........$ .85 1.50 4.00
Slaw and Crout—
3-knife Crout..........per doz. $9.25
1 " Slaw.......... " 1.50
2 " " .... " 2.10
Washer.......... " 7.75

DAMPERS—STOVE PIPE.
Standard..........50&10%
American..........40&10%

DIES--STOCKS AND
Discount..........40&10%

DIGGERS.
Post Hole—
Acme..........per doz. $8.75
Atlas..........per doz. 7.75
Eagle ....per doz. 6 50
Eureka..........per doz. 6.25
Hercules..........per doz. 9.75
Iwan's Split Handle..per doz. $8.00
Iwan's Perfection....per doz. 8.00
Ryan's..........per doz. 17,00

DIVIDERS.
Wing 70%
Extension Wing..........35&5%

DIGGERS—POST HOLE.
Atlas..........per doz. $8.50
Eagle.......... " 6.25
Eureka.......... " 6.50
Hercules .... " 10.25
Ryan's.......... " 17.00
See also Augers—Post Hole.

DOORS--SCREEN.
⅞ in. 4 panel painted per doz. $ 6.85
1⅛ " " " " 7.50
1⅛ in. 3 panel natural pine, fancy..........per doz.. 11.50

DOOR HANGERS—BARN.
Single Flange, D. B. Rail, ...per 100 ft. 1 60
Novelty Check Back, ... 3 in 4 in 5 in 6 in
Per doz. pairs, $2.60 $3.90 $4.95 $6.25

DRILLS.
Bit Stock..........60%&65&5%
Blacksmith's Twist..........60%
Breast—
Common..........each, $2.25
Millers' Falls.......... " 2.10
Hand—
Goodell's Automatic—per doz.
No. 01 No. 03 No. 3 No 20
$7.75 $12.50 $14.25 $11.00
Goodell's Single Gear per doz. $16.00
Millers' Falls " " " 12.50
" " Double " " 15.00
Reciprocating—
Goodells'..........per doz. $17 00
Bit Stock.
Standard List....60&5%@60%@10%

DRIVERS--SCREW.
Hurwood ....40&10%
Standard..........65&10%
Ajax..........70&5%
Champion..........50%
" Pattern..........75&5%
Clark's Interchangeable.. .... 33⅓%
Edison..........60%
Reed's Lightning..........50%
Goodell's Spiral..........50&10&5%
Yankee Ratchet..........50%
" " Spiral.....50&10&5%

ELBOWS.
Conductor..........60%
Adjustable Stove—In. 5 6 7
Smooth....per doz. $0.95 0.95 1.40
Plan'd..... " 2.10 2.35 3.00
Corrugated Stove—In. 5 6 7
Smooth.....per doz. $0.95 .95 1.40
Pol'd........ " 1.70 1.75 2.60
Plan'd...... " 2.60 2.85 3.50
Four-Piece Stove—In. 5 6 7
Smooth....per doz. $0.57 .60 .93
Pol'd....... " 1.00 1.05 1.50
Plan'd..... " 1.50 1.70 2.60

EMERY--TURKISH.
Size ....5-lb. pkgs. ½ kegs, kegs.
No- 60 to 150,# lb. 6¼c 4¾c 4½c
Flour..... " 5¼c 3¾c 3½c

ENAMEL—IRON.
English, ½-pt. cans...per doz. $1.50
Nubian, " " ... " 1.80
O. V. B., " " ... " 1.25
Peerless 1 50

EXTRACTORS--PIG.
See Forceps, Pig.

EYES.
Bright Wire Screw—See Goods, B. W.
Drifting Pick ....60&10%
Hooks and—
Brass..........60&5%
Iron ....65&10%

FASTENERS, STORM SASH.
Moore's..........per doz. $0 80
Schroeder's.......... " 1 50
Sensible.......... " 1 10

FASTENERS, BLIND.
Zimmerman's..........Net

FAUCETS.
Angle Plug..........per doz. $0 84
Brass—Andrew's..........60&10%
Petroleum..........60-10&5%
Wood—Cedar ....40&50%
Cork Lined..........60%
Metal Key..........65&5%
Measuring—Enterprise........25&5%
See also Cocks.

FILES AND RASPS
Black Diamond..........70&10%
Disston's..........75&10%

FILTERS.
Improved Natural Stone.$2 50@13 50
Subject to large discounts.

FORCEPS—PIG
Barber's..........per do $7 25
Superior.......... 4 75
Whisson's Imp.......... 6 00

FORKS
Barley—
Steel..........60&20%
Wood, 4 tines,$5.50; 6 tines,$6.50 doz
Coal..........40%
Coke..........40%
Cottonseed..........40%
Hay—
Diamond, 2 tine..........50, 10&5%
" 3 " ....60&5%
" 4 " ....60⅓&10%
Golden Eagle, 3 tine ....60⅓&10%
" " 4 " ....60&10%
Digging..........60&10%
Scoop..........35%

FORKS—CONTINUED.

Header—
Diamond, 2 tine.....67½&10&5%
" 3 " 65%
" 4 " 65%
Golden Eagle, 4 tine.....10&10&5%
Manure—
Diamond.....60, 15&2½%
Golden Eagle.....66⅔&10%
Ore.....40%
Spading—
Diamond.....70&2½%
Golden Eagle.....70&2½%

Hack Saw— FRAMES
Crown.....per doz., $ 6 25
Miller's Falls..... " 10 00
Star..... " 2 85

FREEZERS—ICE CREAM
Arctic—Qts... 1 2 3 4 6
Each.....$1 10 1 30 1 50 1 80 2 30
Qts..... 8 10 12 15
Each.....$2 95 3 80 4 50 5 20
White Mountain—
20 qt.—New platform, each...$19.10
25 qt.— " " " ... 22.60
25 qt. Sampson Power " ...42.00
40 qt. " " " ...57.00

GAUGES.
Butt and Rabbet.
Stanley R. & L. Co.'s..30&10&2½%
Cream Pail, Fairmont, per doz..$3 75
Marking, Mortise, etc......
....50&10%@50&10&5%
Saw—Atkin's sgle. 55c, dbl. 80c pr doz.
Wire.
Disston's.....25%
P. S. & W. Co.'s.....20%

GIMLETS.
Discount.....40@40&10%

GLASS—WINDOW.
Single and double strength, all sizes..... 90&10%

GLASSES—LEVEL.
Stanley R. & L. Co.....50&5%

Bulk. GLUE.
B Amber.....per lb 9¾c
A White.....per lb 12½c
H. S. Amber.....per lb 17 c
Liquid.
Eagle.....40 %
LePage's—
List "A".....37½%
List "B".....33⅓%
List "C".....25 %

GOODS.
Bright Wire.....90&5%

GREASE, AXLE.
Wood Boxes.
Diamond.....per gr. $5.00
Frazer's..... 9.25
Hub Lightning..... 5.25
Paragon..... 6.75
Wood Pails.
Frazer's, 15 lb. 78c, 25 lb. $1.30 each.
Hub Lightning, 15 lb. 53c, 25 lb. 68c each.
Tin Cans
1 lb. Frazer's carriage, pr. doz. $1.30
1½ lb. " wagon.. " 1.30
3 lb. " " " 2.40
5 lb. " " " 3.50

GRIDDLES
Soapstone.....40&10%

GRINDSTONES
Family—In..... 7 8 9
Per doz.....$8 25 9 00 10 50
Loose.
Per ton.....$20 00@$21 00
Mounted—
Ball Bearing..... 1 2 3
Each.....$3 40 3 25 3 15
Common Bearing.. 1 2 3
Each.....$2 90 2 70 2 55

HAFTS—AWL
Brad—Common.....per doz., $0.18
Peg—
Common..... " 21
Patent, plain top..... " 46
" leather top .. " 52
Sewing—
Common..... " 21
Patent..... " 52

HALTERS
Jute Rope.....per dz $0 80
Sisal Rope..... " 1 95
Web ..... " 2 10
Leather, rope tie..... " 6 25
" leather tie... " 8 25

HAMMERS—HANDLED
Blacksmiths' Hand
Maydole's.....40&10%
Engineers'—
Maydole's.....40&10%
Farriers'.
Maydole's.....35&5%
Machinists'.
Maydole's.....40&10%
Nail.
Ajax.....per doz $5 75
Calumet..... " 3 40
Cast.....per doz $1 10@$1 50
Maydole's.....30&7½%
Vulcan.....35&5%
Riveting.
Maydole's.....35&5%
Shoe.
Cast.....per doz 75c
Tack.
All Iron.....per doz $0 35
Pol'd Iron, Hickory hdl " 0 52
Mall. Iron, Inlaid..... " 1 50
Magnetic 1 2 3
Per doz..... 70c 80c 95c
Magazine.....per doz $4 75

HAMMERS—HEAVY.
Heavy Hammers and Sledges.
Under 5 lbs.....75&5%
5 lbs. and over.....75&10%
Masons'—Single & Double Face..75%
Auger. HANDLES.
Common Ass'd.....per doz $0 36
Peck's Adjustable..... " 2 10
Roger's " .... " 4 15
Ives' " ....per set 1 25
Axe.....40%
Chisel.
Hickory, Tanged Firmer, Assorted, 24c; Large, 26c per doz.
Hickory, Socket Firmer, Assorted, 18c: Large, 21c per doz.
Applewood, Tanged Firmer, Assorted, 27c; large, 36c per doz.
Applewood Socket, Firmer, Assorted.....per doz 24c
Coal Pick.....40%
Drifting Pick..... .....40%
File, assorted 13c. large 16c per doz.
Hammer.
Adze Eye.....per doz 42c
Blacksmiths'.....per doz 45c@65c
Machinists'..... " 39c@58c
Hatchet.....per doz 42c
Hay and Manure Fork.....40&10%
Hoe and Rake.....40&5%
Saw, Plain 72c, Varnished 68c per dz.
Screw Driver, Assorted 42c, Large 48c per doz.
Shovel and Spade..... .40%

Barn Door—HANGERS
Cronk's Automobile Loose Axle.....60%
Cronk's Automobile Roller Bearing.....60&20%
Cronk's Loose Axle Endless Run.....60&10%
Cronk's Roller Bearing.....70&5%
King.....per doz. prs., 5 00
Monarch.....60&10%
"Never Jump" Hinge.....50&10%
Peerless, Loose Axle.....60&10%
Perfection, Roller Bearing..70&5%
Phoenix, Roller Bearing....70&5%
Prouty .....per doz. prs., $5 50
Rival..... " " 3 90
Superb ..... " " 6 25
Safety Flexible " " 6 65
Wagner's Adjustable.....70@10%
Warehouse.....60%
Conductor Pipe—
Iwan's Perfection.....50%
Parlor Door—
Acme.....per set $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
" New Model.... " 2 80
Prouty..... " 3 00
Richards'.....40-10&5%
Eave Trough—
Baker's.....per gr., $2 35
Imperial.....35%
Wire.....35%

HASPS.
Hinge, Wrought.....70-10&10%
With Staples—See Staples.

HATCHETS.
Ajax.....40%
Blood's.....40%
Cast Claw.....per doz $1 50@$1 75
Cast Shingling.... " 1 20
Duffy's Barrel.....per doz 17 50
Germantown.....35%
Hammond's.....35%
Roger's Ideal.....per doz $5 25
Underhill's Star Lath.....40%
U. S. A.....30%

HAY RACK BRACKETS.
Wenzlemann's No. 1, per doz...$12 60
" No. 2. " ... 13 20

Blind. HINGES.
Clark's Gravity, per doz sets....80c
Parker's.....65%
Shepherd's Noiseless, for Wood casing.....doz. $1 05

Gate.
Clark's, 1 2 3
Hgs & Ltchs, dz.. $2 35 $2 60 $3 60
Hinges Only, " .. 1 70 1 90
Latches Only, " .. 0 70 0 75
Knuckle.....per doz prs $6 00
Leed's..... " sets 6 75
Superior..... " prs 9 25
Spring.
American.....35%
Bommer Bros. Ball B'g Floor ...35%
Bommer Bros. Spring Hinges .40%
Chicago.....25&5%
Clover Leaf.....per gro $9
Columbia Dbl. Acting....40&10&5%
Gem.....35%
Ideal Detachable.....per gro $12 00
New Idea..... " 9 60
Oxford.....20%
Wrought Iron.
Light Strap Hinges ....80-5-10&10%
Heavy Strap Hinges80-20-10-10& 0%
Light T Hinges.....75-10-5-10&10%
Heavy T Hinges.....75-5-10&10%
Extra Heavy T Hinges80-20-10&10%
Cor. Heavy Strap ...80-20-10-10&10%
Cor. Ex. Heavy T .....80-20-10&10%
Hart's Heavy Strap.....50+10%
Hart's Ex. Heavy T.....50&10%
Screw Hook and strap.
6 to 12in.....per 100 lbs. $3.65
14 to 20in ..... " " 3.40
22 to 36in ..... " 3.15
Screw Hook and Eye.
⅝in.....per 100 lbs. $6.25
⅝in..... " " 7.25
½in..... " 9.00

HOES.
Garden.....70&10%
Grub:
Ajax.....60%
Extra..... ....65&10%
Hazel.....per doz $5 75
Ladies' and Boys'.....70&12½%
Mortar.....70, 10&10%
Planter's Eye.....62½%
Weed.....66⅔, 10&10%
And Eyes. HOOKS.
Brass.....50&10&5%
Iron.....65&10%
Awning.....per gro $1 80
Belt
Brown's.....70&5%
Jones'.....65&5%
Bench—See Stops, Bench.
Box, In. 6 8 10 12
Doz.. $1 25 $1 60 $1 70 $2 25
Humason & Beckley's...pr dz $2 40
(See Goods, Bright Wire.)
Bush
Common Axe Handle .....per doz $7 00@$8 50
Hamilton Pattern.....per doz $7 25
Chain—In. ¼&5-16 ⅜ 7-16 ½
Per 100 $7 50-7 75 $9 50 $11 25 $12 00
Clothes Line.
Japanned.....per doz 21c@22c
Galvanized..... " 35c
Coat and Hat.
Cast Iron.....per gro 72c@$1 00
Gem Wire.....70&10%
Conductor.
Malleable.....50&10%@50&10&5%
Wrought.....40&10%@50%
Corn.
Common, unpolished, per doz. $1 30
" polished... " 1 70
"Cut Easy," .....per doz. 2 65
Clyde's, ... " 2 40
Brooke's..... " 2 65
Gate.—See Goods, Bright Wire.
Grass.
Common, Nos. 2 3 4
Per doz..... $1 75 $1 80 $1 90
German .....per doz 1 90
Little Giant..... " 3 10
Wood's..... " 1 30
Hammock.
Common..... " 21c
With Plate..... " 36c
With Screw..... " 36c
Piggot's..... " $1 05
Lambrequin or Drapery...per gro 21c
Picture.....50%@50&10%
Potato and Manure.....60&15%
Screw, Brass.....80&20%
(See Goods, Bright Wire.)
Seat Spring.....per lb 5½c

HOOPS—TUB.
Ever Ready..... per case $1 65

HOSE—GARDEN.
3 ply ¾ in. 35 lb. pressure per ft..5½c
3 " ¾ " 50 " " " ..7½c
3 " ⅞ " 60 " " " ..7 c
3 " ¾ " 60 " " " ..8½c
4 " ⅞ " 80 " " " ..8½c
4 " ¾ " 80 " " " ..10 c
6 " ¾ " 125 " " " .11½c
8 " ¾ " 150 " " " ..31 c
Cotton ¾ in. 75 lb. pressure per.. c
" ¾ " 150 " " " .9c

Boss. HUSKERS.
Nos. E A B P
Dz.$1 85 $2 00 $1 95 Gr.$5 90 $5 20
Nos.2000 3000 4000 O OX
Gr.$3 10 $6 75 Dz.$1 15 $2 20 $1 65
Brinkerhoff's.....per gr 14 50
Harrington.....per gr 4 20
Ideal—Nos. 102 101 100
Per doz..... $1 35 $2 50 $2 75
Johnson's.... .....per gro 7 75

IRON.
See Metals—First column.

IRONS.
Curling.
Common ....per doz 23c@48c
Princess.....per doz $0 60
Yale..... " 0 84
Oxford..... " 1 10
Ruby ..... " 1 50
Tourist, Folding ..... " 0 90
Pinking..... " 0 60
Plane.
Wood Bench.....20&5%
Stanley R. & L. Co. (new list)35&5%
Sad.
Charcoal.....per doz $10 75
Common, Polished, per 100 lbs 3 50
" Nickel Plated, " 4 75
Chinese Polishing.....per doz 7 60
Laundry, No. 1, $5 75; No. 2, $6 25 per doz.
Mrs. Pott's.
No. 50 J, Enterprise...per set 70c
No. 55 J, " ... " 76c
No. 50 T, " ... " 82c
No. 55 T, " ... " 79c
No. 50, Howells'..... " 73c
No. 55, " ..... " 69c
Tailors' Sad .....per lb 4¼c
" Geese..... " 4¼c
Tuyere.
Single Duck Nest.....per doz $5 25
Double " " ..... " 6 25
Sutton.....each 2 60

JACKS.
Locomotive.....75&5%
Wagon.
Meeker's .....per doz $4 25
Miller's No. 2 ..... " 7
Winner..... " 7

KETTLES.
Brass.....20%
Caldron..... 50%
Copper.....per lb 27½c
Maslin.....70%
Sugar.....50&5%

KNIVES.
Best Topping.
Clyde, 9-in. Scimiter Blade.dz $4 25
" 12-in. Straight " .dz 2 50
Cooper's Hoop.....15%
Corn.
Acorn.....per doz $3 65
Ajax..... " 2 25
Clipper, Light, $1 75; Heavy, $1 90 per doz.
Disston's.....per doz $3 15
Easy ..... " 7 75
Rugged Razor ..... " 3 40
H. S. Earle's ..... " 3 15
Drawing.
Standard.....70%
Adjustable 20%
Barton's Carpenters'.....10%
" Folding Handle....25&5%
Hay.
American, Sickle Edge...doz $10 25
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 25
Iwan's Sickle Edge..... 10 00
Lightn'g, Holt's Genuine " 6 50
Lightning Pattern..... " 5 75
Wadsworth's Sp'r Point. " 8 75
Hedge.
Ajax, Heavy, $5 75; E Heavy, $7 75 per doz.
Mincing.
Common, Single .....per doz 42c
" Double..... " 65c
Streeter, 4 Blade, $1 20; 6 Blade, $1 90 per doz.
Putty.
Common.....per doz 84c
Goodell's.....per doz $1 30@$1 80
Russell's..... " 1 75@ 2 25

KNOBS.
Base, 2½-in. Maple, Rubber Tip, ...per gro $1 60
Door, Mineral.....per doz 0 80
Porcelain ..... " 0 90
Jet..... " 0 88
Picture.....60&10&5%

LADDERS.
Common Long .....per ft 9c@14c
Extension .....per ft 12c
Step.
Common..... " 7c
" With Shelf, add 10c.
I X L.....per ft 17c
Miller's Household. per ft 13c@15c

LANTERNS.
Bull's Eye Police.
3-in Flash Light.....per doz $6 00
2¾-in Regular..... " 4 00
3-in Regular..... " 5 00
Tubular, Beaver.....40&10&5%

LEADERS—CATTLE.
Nos. 1 2 3
Per doz... $0 70 $0 85 $3 75

LEATHER—LACE.
Cut.....50&10%
Sides, Ex. Quality.....per sq ft 20c

LEATHERS—PUMP.
Valve and Plunger.....50%

LIFTERS.
Stove Cover.
Japanned.....per gro $3 75
Coppered..... " 3 60
Chilkoot..... " 4 50
Devore's..... " 5 50
Zero ..... " 3 90
Transom, Payson's.....70&10%

LINES.
Chalk, Twisted in 20-ft hanks.
Nos. 15 14 13 12 11
Per doz.. 10c 13c 17c 23c 29c
Twisted in 50-ft balls.
Nos. 1 2 3 4
Per doz..... 24c 30c 35c 44c
Braided in 20-ft hanks.
Nos. 0 1 2
Per doz..... 23c 26c 32c
Masons', in 100-ft hanks...doz $1 00
Clothes.
60-ft Jute .....per doz $0 95
72-ft " ..... " 1 10
60-ft Sisal ..... " 1 60
72-ft " ..... " 2 10
60-ft Cotton..... " 1 35
50-ft Braided Cotton..... 1 00

LINING—STOVE.
In Bricks.....per crate 42c

MACHINES.
Boring Without Augers. With Augers.
Ajax .....per doz $5 25 $6 75
Angular... " 3 25 5 00
Boss ..... " 4 50 5 00
Upright... " 3 90 4 00
Leather Riveting.
Chicago, Pomeroy ....per doz $9 75
Excelsior..... " 2 50
Handy..... " 2 10
Little Giant..... " 3 10
Pony, Pomeroy..... " 8 00
Washing.
Boss. 1 3 5 3
Per doz.. $57 00 $63 00 $69 00 $60 00
Globe, No. 1.....per doz $56 50
O K Rotary..... " 55 50
Round Wayne..... " 26 50
U. S. Steel..... " 60 00

MALLETS.
Carpenters'.
Fibre Head, Small. Med. Large.
Per doz..... $5 00 $5 75 $6 75
Round Hickory.....per doz $1 75
" Lignumvitæ.... " 2 75
Square Hickory..... " 1 75
" Lignumvitæ .. " 3 25
Tinners'.
Applewood ..... " 1 [illegible]
Hickory..... " 85
Hickory Sheet Iron. " 90

Door. MATS.
National Rigid ..... 50, 10&5%
Queen Flexible 50%
Stove.
Standrd Quality.....per gross $2 75
Best " (Pure) " 4 75
Wire Covered Asbestos, Ex. Heavy .....per doz 1 00

MATTOCKS.
Ajax.....65&10%
Extra.....60%

MAULS.
Iron, lbs. 10 13 16 18 21
Per doz. $3 15 $3 85 $4 45 4 75 $5 25
Wood face, lbs. 10 11 12
Per doz..... $4 75 $5 00 $5 25
Wood Choppers'.
Lake Super'r & Oregon Pat.75&10%

MEASURES.
¼ pk 1 pk ¼ bu
Galvanized..per dz $3 75
Japanned.... " $1 50 2 25 $2 90
Iron Bound. " 1 40 1 80 2 10
Babbitt. METAL.
Alm.....per lb 8¾c
Best..... " 23c
Common, No. 4..... " 6½c
Copper Mixed..... " 18½c
Magnolia Metal..... " 19c
Tony..... " 10½c
See Metals—In first column.

MICA.
First Quality.....40, 10&5%
Second Quality..... 60%

MILLS—COFFEE.
Enterprise.....25&5%
National.....30%
Parker.....50&10%@60%

MOPS.
Eris .....per doz $3 15
Handled Cotton.
Lbs. ¾ 1 1¼ 2
Per doz.. $2 00 $2 35 $2 65 $3 35

MOWERS—LAWN.
Ball-Bearing.
In. 15 17 19 21
Each..... $7 50 $8 50 $9 50 $10 50
Champion.
In. 12 14 16 18 20
Ea.. $2 30 $2 35 $2 35 $2 65 $3 75
Champion, High Chief.
In. 16 18 20
Each..... $4 00 $4 50 $5 00
Cheap Grades.
In. 12 14 16 18
Each..... $2 10 $2 10 $2 10 $2 20
Clipper .....50&10&10%
Girard, in. 14 16
Each $3 25 $3 50
Philadelphia.
All Styles Except A & E 60&10&10%
Style A .....50&10%
Style E, High Wheel..60,10,10&10%
Drevels..... 50%
All Day.....Net Price
Horse Shoe. NAILS.
Ausable.....50%
Capewell 10%
Perfect.....40&5&
Putnam 10-5%
Star 35%
Picture.
Brass Head.....40&10%
Judd's .....40&10%
Reads.....80&10&10%
Furniture 40%
Wire.
Small Lots.....$2.25
Carload " 2 15
Cement Coated 2 10

NETTING—POULTRY.
Galvanized Before Weaving.80&20
" After Weaving...80&15
Cut Pieces.....65&5%

NIPPERS.
End Cutting.
P. S. & W. Co.....40&5%
Stubb's Pattern .....40&10&5%
Hoof.
Heller's.....40&5%
P. S. & W. Co.....40&10%
V. & B 40-5%
Hose. NOZZLES.
Genuine Boston.....per doz $3 15
Genuine Gem..... " 3 15
Magic ..... " 3 40

NUTS—HOT PRESSED.
Square Blank.
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
Lb. 9c 6c 4c 3½c 3¼c 3¼c 3c
Square Tapped.
In. ¼ ⅜ ½ ⅝ ¾
Lb. 11¼ 7½ 5¼ 4½ 4¼
For 5 lb. boxes add ½c per lb. to above prices.

OILERS.
Chase Pattern.
Brass and Copper 35%
Zinc.....60%
Engineers'.
Cannon 10%
Tin.....per doz $2 50@$3 00
Machine.
Ajax.....per doz $0 80
Copper Plated Steel... " 1 50
Malleable Iron.....40&10&5%
Tin.....per doz 55c@65c

OPENERS.
Box, in. 10 12 14
Flat....per doz $2 85 $3 60 $4 15
Round.. " 2 10 2 25 2 "
Can.
American.....per doz $0 26
Delmonico..... " 1 35
Never Slip..... " 0 45
Perfect ..... " 58
Tip Top..... " 0 84
Crate, V. & B..... " 5 75

OUTFITS—COBBLING.
Combination ....per doz $11 50
Economical .... " 4 90
Family..... " 10 00

PADLOCKS.
Standard Wrought.....70&10&5%
Champion 50%
Eureka.....40&10&5%
Yale..... .....60&5%

Cream. PAILS.
14-qt., Without Ga....per doz $2 75
20-qt., " " .... " 3 25
20-qt., With Gauge.... " 4 20
Sap, 10-qt., Galvanized, $1 60; 12-qt., Galvanized, $1 85 per doz.
Stock, Galvanized.
Quarts. 14 16 18 20
Per doz... $3 75 $4 00 $4 65 $5 25
Water, Galvd, qts. 10 12 14
Per doz..... $1 75 $2 00 $2 35
Wood.
Cable, 3-Hoop, $1 90; 3-Hoop, $2 10 per doz.
Cedar, 3-Hoop, $2 85 per doz.
Standard, 2-Hoop, $1 65: 3-Hoop, $1 85 per doz.

PANS.
Dripping.....50&10&5%
Fry, Common.....60&10&5%
Acme .....60%&5%
Roasting.
Brownie.....Each 30c@37c
L. & H..... " 58c@80c
Building. PAPER.
Plain.....per 100 lbs $1 15
Tarred..... " 1 25
Tarred Felt..... " 1 80
Diamond A, Red Rosin.pr roll 0 60
Leader, Red Rosin..... " 0 50
Sand and Emery.
Ajax.....50&10%
B. & A.....50 & 5%
Wrapping.
Grecian Express .....per lb 3¾c
Rag ..... " 2½c
Apple. PARERS.
Bay State .....per doz $13 00
Reading ..... " 6 75
Turntable ..... " 6 00
White Mountain..... " 5 25
Potato.
Goodsell's Saratoga...per doz. $6 50
White Mountain..... " 6 00

PICKS
Adze Eye Ore.....65&10%
Drifting and Poll Picks.....60&10%
Ajax Railroad.....60%
Extra Railroad.....65&10%
Surface.....65%

PINCHERS.
Carpenters', wrt. iron, pol. steel jaws.....30%
Blacksmiths'.....50%
P. S. & W.....40&10&5%
Clothes. PINS.
Common.....per gr..$0 12
Hoyt's..... " .. 30
U. S..... " .. 70
Picket.
Fluted 15 in.....per doz..$0 70
" 21 in..... " .. 1 60
Spiral ..... " .. 1 90

PIPE.
Conductor. Nested Not nested
Eastern, A...75&7½% 75&2½%
Eastern.B.75&10&2½% 75&7½%
Central .....75&7½% 75%
Southwst'n.. 70-&7½% 70&2½%
Texas.....70&7½% 7L&2½%
Mo. River,...70&7½% 75%
Southern .....70&10% 70&5%
Lead.
Full coils.....per lb..$0 6
Cut " ..... " .. 6¼
Stove.
Acme—In. 5 6 7
Smooth, per jt. 10½c 10½c 12½c
Planished, " ..22c 33c 43 c
Peerless--Smooth..8½c 9c 11½c
Polished. 16c 18c 22 c
Planished 28c 31c 40 c
Made-up—In. 5 6 7
Smooth..... 8¾c 9c 12 c
7 to 6 in. Smooth Tapers, pr jt..14c
6 in. Smooth T's..... " ..30c
7 to 6 in. Planished Tapers.....45c
Wrought Iron Gas Pipe.
⅜-in., black.....discount, 60%
½ " ..... " 63%
¾-in. to 4-in , black.... " 69%
4½ " 6 " .... " 66%
7 " 12 " .... " 64%
⅜ " galvanized " 48%
½ " " " 50%
¾ " to 4 " " 56%
4½ " " 6 " " 52½%
7 " " 12 " " 50%

PLANES.
Siegley Iron Bench.....50&10%

Corn, PLANTERS.
Monitor.....per doz..$7 75
Triumph..... " .. 6 00
Potato
Acme.....per doz.. $6 25
Challenge ..... " .. 10 75
Fencing.
Cronk's.....per doz..$9 25
Farmers' Choice..... " .. 8 75
Russell's..... " .. 8 65
Flat and Round Nose.
Bernard's.....30%
German.....50%
Lodi.....40%
Paragon.....40&10%
P. S. & W. Co.....60%
Gas—In. 8 10 12
Per doz.....$2.10 $4.00 $4.90

PLIERS.
Button's--In. 4½ 6 8 10
Per doz.....$2.60 $3.10 $3.90 $5.20
Button' "attern.
In. 4½ 6 8 10
Per doz.. ..$2.35 $2.50 $3.45 $4.40
Cutting.
Bernard's.....30%
Cronk's Impr'vd Button Pliers.75%
Cronk's Linemans No. 80.....40%
Cronk's Stubbs Pattern ....50&10%
Cronk's No. 1.....60&10%
Cronk's Staple Puller Pliers..$9 00
Lodi.....40&10&5%
4 Tube, revolving.... " .. 5 25
Tinners'.
Hollow.....
Solid.....each..5½c

PLUMBS AND LEVELS.
Common.....75%@75&10%
Cook's.....40%
Davis' Iron 30%
Davis' Inclinometer.....20%
Stanley's
Nos. 00S 0S 2S 3S
Per doz..$4.50 $5.20 $7.60 $8.65
Nos. 30 25 50 35
Per doz.$13.00 $17.50 $17.50 $12.35

POINTS. Discount
Drive Well Points.....80&10&5%

POKERS--STOVE.
Wr't Iron, str't or bent, per doz.$0 50
Wr't Iron, wood hand'ls " 75
Nickel pl'td. coil hdl's.. " 70

POKES--ANIMAL.
American .....per doz.....$2 60
Brown's,wr't steel " ..$5 25@6 25
Eagle..... " $4 25
Success..... " 2 60

POLES--FISHING.
Bamboo
Ft. 12 14 16 18 20
Pr 100..$3.75 $3.40 $4.75 $6.00 $7.75

POLISH.
Metal.
Pride of the Bar..... " .. 1 60
Putz Cream.
Pts. 1-6 ¼ ½
Per doz.....$0.84 $1.25 $1.80
Pts. 1 2 4 8
Per doz.$3.60 $6.00 $9.00 $18.00
White Silk, half pints, per doz.$2.00
White Silk, 6 oz. cans, per doz. 1.00
Wondershine
Pts. 1-6 ¼ 1 2
Per doz...$0.68 $1.30 $2.15 $3.00
Shoe.
M. D. C.....per doz..36c@50c
F. C. O..... " 40c
T. M ..... " 50c@$1 25
Imperial.....per gr.....$5 00
Stove.
Black Eagle, 1 lb cans, prgr..$15 00
Black Silk—
5 lb. pail 70c
Paste, 5 oz. cans per doz.....$1.00
Paste, ½ lb cans, per doz... 1.00
Black and Japanned—
Liquid. ½ pint cans per doz. 1.00
Liquid. 6 oz. cans per doz.... 75c
Steel Range Gloss per doz... 1.75
Blackene, 1 lb cans....pr gr.. 13 00
Black Jack. ¾ lb cans. " .. 9 00
Dixon's Carb. of Iron. " .. 5 75
Nickel Plate..... " .. 4 50

POPPERS, CORN.
Round or Square, 1 qt. per doz., $5@95c
Square, 1½ qt.....per doz., $1 00
Square, 2 qt.....per doz., 1 25
1 qt. reversible .....per doz., 1 50

POTS—FIRE.
Bernz.....each. $3 85
Clayton & Lambert's,each.$4 75@6 25
Gate City.....each.. 6 25
Gem ..... " .. 6 75

POWDER.
See Ammunition.

PRESSES—FRUIT AND JELLY.
Enterprise Manufacturing Co... 25%
Henis .....per doz. $2 10

PRUNERS.
Disston's Pole.....per doz..$7 50
Henry's Improved..per doz..65&10%
Water's Improved. " 70, 10&5%

PULLERS.
Cork.
Modern.....each..$2 60
Quick and Easy..... " .. 2 90
Nail.
Giant.....per doz..$9 00@10 50
Giant Pattern. " .. 00
Tack—Giant .... " .. 60

PULLEYS.
Awning--Jap'd.....40&5% to 25&5%
Clothes Line.....20&10%
Hay Fork.
Iron Wheel, 5 in .....per doz..$1 85
Wood Wheel, 6 in ... " .. 1 80
Wood Wheel, 6 in... pass knot..... " .. 2 25
Hot House--Jap'd .....30&5%
Screw..... " .....30&5%
Side..... " .....3&5%
Sash.
Chicago .....per doz..$0 39
Clark's..... " .. 42
Common Sense, 2 in.. " .. 26
" Pattern, 2 in.. " .. 20
Empire..... " .. 24
Ideal..... " .. 22

PUMPS
Pitcher Spout.
Nos. 1 2 3 4
Each..... 0.9 $1.05 $1.15 $1.40

PLATES--TIN.
See Metals in Column 1.

Spray.
Blizzard.....per doz..$14 25
Cyclone, tin..... " .. 3 90
" copper..... " .. 6 75
Daisy..... " .. 8 75
Little Giant.....each.. 2 40

PUNCHES.
Conductors', No. 22....per doz..$2 50
Machine.....per lb . 19
Saddlers'.
Common.....per doz..60c@70c
Good..... " ..72c@84c
Spring.
1 Tube .....per doz $2 25

PUTTY.
In Bladders.
Strictly pure .....per 100 lbs. $2 35
Commercial ..... " " 2 10

RAIL.
Barn Door.
Light Wrought.. .....per ft. 3c
Safety .... " 4½c
Single Flange ..... " 1¾c
Smith's Wro't Bracket—plain 3¼c
Smith's Special 4½c
Smith's "Never Jump".....11c 50%
Smith's Plain Steel.....30%
Smith's Milled Steel 4½c
Sliding Door.
Painted iron .....per ft. 4½c
Bronzed wr't iron..... " 8½c

RAKES.
Coal or Road.....per doz. $6.50
Garden.
Cronk's Champion.....70%
Cronk's Victor.. .....75%
Steel, braced .....75&15%
Steel, bow 70%
Malleable iron, heavy.....70%
Hay—Wood.....per doz. $1 40@2 00
Lawn—Wood.
Common .....per doz. $2 50
Automatic..... " 6 00
New Lawn Queen .... " 3 60
Jumbo, 36 teeth ..... " 6 50

RASPS—See Files.

REGISTERS.
List July 1, 1903
Black and White Japanned .70 to75%
Nickel Plated.....70 to75%
Electroplated, Brass, Bronze or Copper.....70&75%

RINGS
and Ringers—Hog.
Blair's Rings .....per doz. 60c
Blair's Ringers ..... " 84c
Brown's Rings..... " 65c
Brown's Ringers..... " 90c
Champion Rings..... " $2 35
Champion Ringers..... " 1 70
Hill's Rings..... " 48c
Hill's Ringers..... "70c@95c
Mazor Rings ..... " 80c
Mazor Ringers ..... " $1 15
Perfect Rings ..... " 84c
Perfect Ringers..... " $1 05
Wolverine Rings..... " 1 50
Wolverine Ringers.... " 70c
Bull.
Copper, 2½-in. 3-in.
per doz..... $1 35 $1 70
Steel.....per doz. 95 1 05
Steel, Nickel Pl'td, 2½-in., doz. 1 35
Rea's Self Piercing.. ... " $1.75
Fruit Jar—White .....per lb. 30c
Key.
Split, round.....per doz. 1
Split, square ..... " 32c
Ball, round..... " 32c

RIVETS.
and Burrs.
Copper Belt .....50&10&5%
Coppered Iron 75%
Tinners'.....66⅔@10%
Hame.....per lb.
Slotted Clinch .....per doz. 40c@45c
Tubular—Nos. 1 and 2, assorted sizes.....per doz. 45c

ROPE.
Per lb.
Manila, 7-16 inch diameter and larger..... 11¾c
Sisal, 7-16 in. and larger..... 8½c
Cotton.
¼ and 5-16-in. on reels.per lb. 13½c
¼ and 5-16-in. in coils... " 14c

RULES.
Boxwood.....60%
Ivory .....35&5%

SASH WEIGHTS.
Per ton, f.o.b. Chicago.....$30.00

SAWS.
Back.
Disston's.....25&7½%
Jackson's .....25&7½%
Butchers'—Disston's .....35&7½%
Circular.
Disston's.....50%
Hiles' 50-10%
Compass.
Common .....per doz. $1 35@1 60
Disston's .....25&7½%
Cross-Cut.
Atkin's.....40%
Disston's.....40&10% &50%
Pocahontas Bit.....per ft. 39c
Pocahontas, Blued ..... " 41c
Dehorning.
Atkins' .....per doz. $5 50
Disston's ..... " 5 75
Hack.
Disston's 25½%
Keystone 33⅓%
Sterling Hack Saw Blades.....25%
Sterling Hack Saw Frames....30%

SAWS—CONTINUED.

Hand and Rip.
Brown's .....30&7½%
Disston's No. 7.....30&7½%
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120.....25&7½%
Gorham's Comb.....30&7½%
Keystone.....30&7½%
Sam Sickles', hand...per doz. $4 25
"I Will," hand..... " 5 75
"I Will," rip..... " 6 75
"U. S. A." hand..... " 12 25
"U. S. A." rip..... " 14 25
Keyhole—Disston's .....25&7½%
Kitchen
Sterling.....25%
One Man 50%
Panel.
Brown's .....30&7½%
Disston's No. 7.....30&7½%
Disston's D100.....25&2½%
"I Will" 40%
"U. S. A." .....40&10&5%
Pruning.
Avery's Duplex .....25&7½%
Brown's.....25&7½%
Disston's.....25&7½%
Wood.
Common.....per doz. $4 50
Handy ..... " 7 50
Happy Medium ..... " 7 00
Wood Sawyers' Delight " 8 25

SAW SETS.

Common Lever.....per doz. $ 1.20
Stillman's Lever.....per doz. 1.30
Leach's.....per doz. 5.00
Nash's.....per doz. 4.20
Monarch.....per doz. 6.50
Aikin's Pattern.....per doz. 3.50

SAW FRAMES.

Common, plain.....per doz. $1 20
" painted..... " 1 60

Counter. SCALES.

Fairbank's Standard.....30, 10&5%
Hatch's.....per doz. $21 50
Little Detective, 1 2 3
Each $3 00 2 25 2 10
No. 1 Tea .....per doz. 7 75
Union Platform.....each 2 40
Pelouze 30%
Turnbull's Market.....50%
Platform.
Common, 600 800 1000
Each $8 20 8 75 9 50
Chicago Standard.....30 to 33⅓%
Fairbank's Standard.....40%
Osgood.....50%

SCOOPS.

Ames.....10&10%
Eastern Pattern. Socket Strap.
Nos. 2 3 4 5 6
Per doz. $7.00 7.25 7.50 7.75 8.00
Nos. 7 8 9 10 12
Per doz. $8.25 8.50 8.75 9.00 9.50
Western Pattern. Socket Strap.
Nos. 1 2 3 4 5
Per doz. $7.00 7.25 7.50 7.75 8.00
Ajax. *Eastern Pattern,*
Nos 2 3 4 5
Per doz. $5.25 5.50 5.75 6.00
Nos. 6 7 8 9
Per doz. $6.25 6.50 6.75 7.00
Ajax. *Eastern Pattern,* extra heavy.
Nos. 3 5 6 7
Per doz. $7.25 7.75 8.00 8.25
Ajax. *Western Pattern,*
Nos. 4 5 6 7
Per doz. $5.75 6.00 6.25 6.50
Nos. 8 9 10 12
Per doz. $6.75 7.00 7.25 7.75
Box. SCRAPERS.
Stanley's Adjustable, per doz. $3 60
Triangular ..... " 2 50
Cabinet.
Ajax .....per doz. $2 25
Cast Steel ..... " 65c@75c
Stanley's No. 80..... " $8 40
Road.
Cubic ft. 7 5 3
Without runners, ea. $4.35 4.10 3.85
With runners.... " 4.60 4.35 4.10

Bench. SCREWS.

Iron.....40%
Wood, white maple..per doz..$3 60
Hand—Wood.....20%
Hand Rail.....70&10%
Jack.....75&5%
Lag or Coach, ...80%
Saw—Centennial.
Nos. 1 2 3 4
Per doz..... 22c 25c 32c 36c
Wood.
F. H. Bright Steel ....87½, 10&10%
R. H. Blued Steel.....85&5%
F. H Jap'd Steel.....83⅓&5%
F. H. Brass .....85&5%
R. H. Brass .....80&5%
R. H. Nickel Plated.....75%

SCYTHES.

Clipper, grain.....per doz..$7 75
Dutchman, grass ..... " .. 5 25
Golden Clipper, grass. " .. 5 00
U. S. A., grass..... " .. 5 75
Nail. SETS.
Round, common.....per doz..$0 33
Square " ..... " .. 42
Octagon " ..... " .. 33
Square, Buck Bros.. " .. 1 25
Cup Point, knurled, pr doz..70c@90c
Rivet.
Farmers'.....per doz..$1 45
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz..$3 50
Common Lever. " . 1 20
Disston's Monarch... " .. 6 50
" X Cut..... " ..11 75
German..... " .. 1 25
Morrill's Old Style... " .. 5 00
" Pattern.... " .. 4 50
Leach's..... " .. 4 80
Nash's Hand..... " .. 4 00
" X Cut..... " .. 5 50
Stillman's Lever..... " .. 1 30
" X Cut..... " 2 50

SHARPENERS—SKATE.

Diamond.....per doz..$1 60

SHAVES—SPOKE.

Iron.....per doz..$1 35@$2 75
Wood..... " .. 2 75@ 4 75
Bailey's.....50&5%
Goodell's.....15%
Stanley's Universal.....30&5%
Pruning. SHEARS.
Buckeye, No. 1.....per doz..$6 75
" No. 2..... " .. 8 4
California Pat., 9 in.. " .. 4 25
" 10 in.. " .. 5 00
Draw Cut, No. 3..... " ..14 75
" No. 4..... " ..17 50
Henry's Pat. 0 01 14 012
Per doz...$1.90 $2.50 $3.15 $3.50
Star.....per doz..$4 75
Sheep—No. BBA.
6 in. 6½ in. 7 in.
Reg.Grip..$11.25 $11.50 $12.00 doz.
Nar.Grip.. 11.75 12.00 13.00
Tinners'—See Snips.

SHEAVES—SLIDING DOOR.

In. 3 4 5
Common..Per set...$0.42 $0.48 $0.70
Hatfield's. " .. .75 1.00 1.60

SHELLERS—CORN.

Union .....per doz..$7 25

SHOT—See Ammunition.

SHOVELS AND SPADES.

Drain.
Iwan's Perfection.....50%
Railroad, Etc.
Gold Hibbard's.....per doz.. $9 25
C. H. Conovers's.... " .. 7 75
Beckwith's..... " .. 7 75
Hickory..... " .. 6 25
Greenleaf's ..... " .. 5 75
Columbus..... " .. 5 00
Ames' new list .....Discount 12½%
Coal.
No. 2 Ajax.....per doz..$5 25
No. 4 Golds..... " .. 6 25
Ames' new list.....Discount 12½%

SIEVES.

Champion.....per doz. $ .90
Hunter's Genuine..... " 1.10
" Imitation..... " .90
Tin Rim, 16 mesh plain wire" 1.35
Wood " 16 mesh plain wire" .80
Cast iron. SINKS.
Painted.....50&5%
Enameled, White ....60-10&5%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS—HARNESS.

Champion.....65%
German Pattern.....30&5%
Judd's Pattern .....60&10%@70%

SNATHS.

Double Ring, Bush....per doz..$6 75
Patent Loop " .... " .. 7 30
" " Grass.... " .. 6 50

SNIPS—TINNERS'.

Hernisch's .....40&5%
National .....40&5%
P. S. & W. Co.'s.....25&5%

SOLDER.

See Metals, Column 1

SPRINGS—DOOR.

Perfect. Nos. 1 2 3 4
Per doz..... 32c 38c 45c 48c
Reliance, Light $1.40, Heavy $2.20 doz.
Star..... " .90, " 1.30 "
Torrey's.....per doz..$1 25
Warner's— No. 11 No. 13
Per doz..... 70c $1 30

SQUARES

Steel and Iron 70%
(Add for Bluing, $2.50 per doz., net.)
Mitre—Stanley's No. 12 .....40%
Try.
Stanley's No. 20, new list...30&10%
" Nos. 12 and 14.....40%
Try and Bevel—Stanley's.....40&5%
Try and Miter.
Fox's.....per doz..$7 25
Winterbottom's 50%

SQUEEZERS—LEMON.

Common Wood.....per doz..$0 70
Porcelain Lined, wood. " .. 1 30
Boss, tinned iron ..... " .. 82
Pearl, nickel plated.... " .. 1 30
Star " " ..... " .. 1 60
Little Giant, tin'd iron " .. 4 25
King..... " .. 2 50
Drum ..... " .. 4 75

STAPLES.

Blind—Barbed .....per lb. 9½@10c
Butter Tub..... " 8@8½c
Fence, less than carload.
Polished .....per 100 lb. $2 40
Galvanized ..... " 2 70
Netting—Galvanized.....per keg 3 60
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples ..... 35-10&5%
Extra heavy ....75&10%

STEELYARDS.

Discount 25%

STONES.

Axe.
Hindostan .....per lb. 5½@7c
More Grit..... " 9½c
Washita ..... " 12½c
Emery .....60%@60&5%
Oil—Unmounted.
Arkansas Hard .....per lb. $2 00
Arkansas Soft ..... " 1 15
Hindostan ..... " 6½@6¾
Oil.—Unmounted.
Lily White..... per lb 43c
Queer Creek..... " 14½c
Ouachita..... " 36c
Washita..... " 25c
Sythe—Black Diamond per gro. $7 75
Clear Grit ..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 20
La Moille..... " 7 00
White Mountain.....per gro. 6 50
Willoughby Lake .... " 6 25
Red End ..... " 3 15

STOPS—BENCH.

Hotchkiss'.....per doz. $3 60

STOPPERS—FLUE.

Common .....per doz. 42c
Crown..... " 48c
Gem, flat, painted..... " 72c
Gem, cor'd, decorated..... " 68c
Kirch's ..... " $1 20
Peerless ..... " 72c
Skinner's Common Sense " 95c

STRAPS.

Scoop .....per doz. prs. $1 80
Skate..... " " 60@70c
Carpet. STRETCHERS.
Bullard's .....per doz. $3 90
Excelsior ..... " 6 00
Malleable Iron..... " 70
Perfection ..... " 6 00
King ..... " 4 50
Wire.
N. S. Elwood's .....per doz. $5 75
O. S. Elwood's..... " 5 75
Little Giant ..... " 5 50
Star Lever..... " 6 25
Star Tackle Block.... " 9 25
Warner's ..... " 6 25

SWIVELS.

Malleable Iron .....per lb. 5½c
Wrought Steel.....per gro. $4 50

TACKS.

American Cut.....90&5%
American Wire.....85&25&10%
Bill Posters Cut ....90&40%
Blued Carpet.....90&15%
Tinned Carpet.....90&15%
Gimp .....90&30&10%
Upholsters' Cut .....90&40&5%
Upholsters' Wire .....90&25%
Double Pointed .....90&20%
Copper .....per lb 27c
Canvas Nails.....75&5%
Clout Nails.....75&10&5%
Hungarian Nails.....80&5%

TAPES—MEASURING.

Asses' Skin .....40&10%
Bend Leather.....25%
Patent Leather.....25%
Lufkin's Steel.....30%
Lufkins Metallic 30%

TENTS AND PAULINS.

Wall Tents .....50&5%
Wedge Tents 45%
Paulins 45%
Wagon Covers..... 45%

THERMOMETERS.

Tin Case.....per doz., 95c@$1 25
Wood Back..... " $1 75@ 9 00
Glass ..... " 15 50

TIES.

Bale.
Single Loop..... 80&5%
All other kinds.....70%
Cow—See "Chains."

TONGS.

Crimping—Packham's...per pair 50c
Gutter—P. S. & W. Co.'s.....15&10%
Pipe—Brown's..... .....50%
Roofing—P. S. & W. Co.'s ....15&10%

TOOLS—SAW.

Atkin's Dexter.....per doz. $4 25
Atkin's Excelsior..... " 6 25
Disston's Universal 40%
McDonald's 33⅓%
Game. TRAPS.
Newhouse.....50%
New Victor 75-10%
Mole—Reddicks .....per doz. $5 75
Mouse and Rat.
Wood Choker.....per hole 11c
Tin Choker ..... " 9c
Delusion.....per doz. 85c
Imitation Sight, Rat .. " 80c
Marty Rat..... " $6 75
Marty Rat, Imitation.. " 3 75
Marty Mouse..... " 3 15
Marty Mouse, Imitation " 2 10
French Automatic..... each $3 60
Fly.
Balloon.....per doz. $1 10
Harper's..... " 1 25
Brick. TROWELS.
Standard.....30%
Brade's.....10&7½%
Disston's.....30%
Rose's.....25%
Plasterers'.
Standard 33⅓%
Disston's.....30%
W. & McP.....25%

TRUCKS.

Bags.....each $1 70
Handy..... " 1 50
Warehouse.....60&5%

No.	1	2	3
Half Ironed.....	$2.60	$3.40	$5.00
Full Ironed.....	3.90	5.75	6.75

TUBS-WASH.

	No. 3	2	1	Ex. large
Standard, per doz.	$5.25	6.25	7.25	9.75
Dowel .... "	5.60	6.60	7.50	10.00
Cedar .... "	6.50	7.50	8.25	
Painted. "	7.20	7.95	9.45	11.70
Galvanized.	No. 1	2	3	
Per doz	$5.25	5.75	6.50	

TWINE. per lb.

3 ply Cotton Wrapping.....23c
4 " " " 24c
4 " Cotton Extra Wrapping.....29c
3 " " " Hvy. Wrap'g.27c
4 " " Wrapping on tubes.24c
4 " " " " cones.24c
4 " " " " " 24c
India Hemp, ¼-lb. balls.....18c
" " ½-lb. " 17c
" " ¼-lb. " ...doz., 65c
2-ply " ¼-lb. " 11½c
3 " " ½-lb. " 11½c
Jute Wrapping, ½-lb. balls.....11½c
Jute Wool, 1-lb. balls.. ..... 6c
Staging, ¼-lb. ball, size 21.....28c
" ¼-lb. ball, " 24.....27c
" ¼-lb. ball, " 27.....27c
Bagging, ¼-lb. ball..... .....22c
3-ply "B" in hanks.....19c
4 " "B" " " 19c
3 " "A" " " 22c
3 " Silver Finish, in hanks....39c
Fodder or Lath.
130-strand..... 8c
200-strand..... 8½c

VISES.

Bonney's.....30%
Cheney's 30%
Parker's Oval Slide.....50&10&10%
Parker's Parallel.....15&20%
Parker's Victor.....10%
Parker's Combination.....50&10%
Solid Box.....60&5%
Adam's Mechanics'.....each $2 65
Williamson Universal..... ..20%

WARE,

Cast-Iron Hollow.
Ground ..... 40, 10&2½%
Unground ..... 50, 10&2½%
Extra Finished.....40&10%
White Enameled.....40&5%
Muslin Kettles.....65%
Enameled.
Adamant, one coat, 70&10%@75&10%
The manufacturers divide this ware into two classes, which take different discounts, noted above.
Chrysolite, three coat.....40&5%

WASHERS.

Standard O. G. cast iron, per lb..2½c
Wrought iron in bulk per lb.:
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
7¾c 5½c 4c 3¾c 3½c 3½c 3½c
Wrought steel in 5 lb. boxes, per lb.:
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
8¾c 6½c 5c 4¾c 4½c 4½c 4½c

WEDGES.

Ax.....per doz....30c
Galling .....per lb..10½c
Saw..... " .. 8½c
Wood Choppers.
Lake Superior and Oregon,
Pat .....per lb.. 9½c
Reg. Pattern, Steel... " .08-½c
Truckee " " ... " .08-½c

WEIGHTS.

Hitching.....per lb..2½c
Sash—F.O.B. Chicago..pr ton...$21.00

WHEEL BARROWS.

Common Railroad....per doz..$16 00
Heavy .... " .. 19 50
Railroad, ball bearing " .. 19 00
Santiago Steel Tray.. " .. 26 50
No. 04 Steel Dirt ... " .. 47 00
No. 04½ " " ... " .. 50 00

WHEELS.

Corundum.....70&10&5
Emery.....75&5%
Well. In. 8 10 12 14
Per doz.... $1.90 $2.20 $3.00 $5.50

WIRE.

Barbed. Painted. Galv'd.
Carloads...pr 100 lbs..$2.45 $2.75
Less than car " .. 2.55 2.85
Brass.
In coils.....20%
In 1 lb. spools, new list.....50&10%
Broom—Tinned.....30&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%33⅓%
In 1 lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, Annealed, pr 100 lbs. $2.15
Nos. 6 to 9, Galv'd... " 2.45
Hair—New list.....50&10%
Market.
Bright, full bdles.....70&10%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles ....65&10%
Tinned, full bdles..... .....70&5%
Tinned, broken bdles.....65&10%
Picture.—In coils.....80%@80&10%
In 5 lb. spools .....per lb..36c
Plain—Small lots..... .....$2.00
Car lots..... ... 1.95
Small spools 5c per hundred higher

WRENCHES.

Acme Standard.....60%
Alligator .....65&5%
Always Ready.....40&10&5%
Bemis & Call.....40%
Coe's Standard..... .40&10%
Girard's Agricultural.....80%
P. S. & W. Co.'s Agricultural....75%
" " " Knife H'dle..50&5%
Wescott's "S 33⅓%
Malleable "S .....per lb. 05½c
Malleable.... .....per lb. 05½c
Stillson Pipe.....60&5%
Trimo " 60%

Clothes. WRINGERS.

No. 22, Guarantee.....pr doz.$26 50
No. 110, Guarantee.... " 27 50
No. 150, Sunshine..... " 20 50
No. 130, Mendota..... " 18 50
No. 13, Success..... " 17 50
Blue Bell Ball Bear'g. " 24 50
No. D 110 Domestic... " 23 50
No. E 310, Empress... " 26 50
No. 122, Bicycle Ball-bearing..... " 25 50
No. 122, Swan..... " 25 50

Wants and Sales:

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS

HUBERT E. PECK, 623 F St., N. W., Washington, D. C. Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications." Honest work but no "Something for Nothing" offers.

For Sale—Fairbanks-Morse 60-ton, 36-foot track scale with timber; $300.00 f. o. b. Janesville. Janesville Electric Co., Janesville, Wis. 16

Wanted—To buy stock of hardware in good live town in southern or central Minnesota. Stock to not exceed $3,000, or would consider partnership in some good hardware business. Address 174 East 4th st., Winona, Minn. 16

For Sale—A good clean stock of hardware and implements of about $5,000, also good 8-room dwelling house located in good thriving town in Southeast Nebraska. Good established trade of 18 years' standing. No trades of any kind considered. This proposition will bear investigation. For particulars address "Cash," care THE AMERICAN ARTISAN, 69 Dearborn street, Chicago, Ill. 16

For Sale—A first-class stock of hardware, stoves, furniture and implements with tinshop. Business established 12 years. Stock can be reduced to $7,000. Write for particulars. Address Box 9, Argenta, Ill. 16

For Rent—Factory building, 124 by 51, two stories, well lighted. Equipped with city water, elevator, office, shafting, steam heat, electric light and power. Located within three blocks of postoffice. Spur tracks of two roads to building. Janesville Electric Co., Janesville, Wis. 16

For Trade—I will trade good North Dakota or Missouri land for stock of hardware; can arrange to pay some cash; write to owner for square deal. Lock Box 315, Alden, Minn. 16

For Sale—Hardware, etc., with tinshop connected, about $6,000; best location in our Wisconsin town of 5,000 business good, but health poor; don't write without you mean business. Address W. I. S., care THE AMERICAN ARTISAN, 69 Dearborn st., Chicago, Ill. 16

For Sale—Stock of hardware in a lively town 2,000 inhabitants. Stock will invoice about $3,500.00; senior partner is old and wishes to retire. Good demand for roofing, spouting, plumbing, and furnace work. Splendid opening. For particulars address Dixon & Conway, Elroy, Wis. 15

For Sale—A clean, up-to-date, old established, good paying business with tin shop. Will invoice about $4,000. Reasons for selling, sickness. For particulars write Frank Hesse, Clarksville, Ia. 15

Wanted—To buy stock of hardware and tinware from $2,000 to $3,000 in good country town. For particulars write "L." care The American Artisan, Chicago, Ill. 15

For Sale—Well established Hardware store and tin shop in one of Chicago's best suburbs; going to Seattle, reason for selling. Address "Seattle," care The American Artisan, 69 Dearborn St., Chicago, Ill. 14

For Sale or Trade—6 business lots and building suitable for dwelling or business in a nice little Minnesota town for tinner's tools and hardware. Address Lock Box 4, Ash Creek, Minn. 14

Wanted—A partner in a well established furnace and jobbing shop. Must be a good mechanic, neat and quick and have $1,000 which will be used in adding a manufacturing branch to the business located in Denver. Address "Start," care The American Artisan, 69 Dearborn St., Chicago, Ill. 14

TINNERS' TOOLS.

For Sale—Cheap, a brand new $130 square shears. E. J. Countryman, Dixon, Ill. 16

For Sale—A first-class complete set of tinners' tools; good as new; write for list and prices to Lock Box No. 8, Philbrook, Minn. 16

For Sale—One Hurlburt's Double Seamer, nearly new, complete with all heads and dies that are made for the machine. Will take $8.50 for the machine complete and guarantee it in every way. J. H. Jones, 414 Main St., Streator, Ill. 15

For Sale—Tinner's tools, all or part of them. Apply Bucholz, 111 Perry St., Chicago, Ill. 14

HELP WANTED.

Wanted—At once, competent tinner; must be able to make estimates for sheet metal work of all kinds from plans, also to do first-class job of furnace work; good wages and steady position to capable man; good town of 15,000 people; growing rapidly; write stating full particulars and wages wanted. Address W. H. Dodge, Waukegan, Ill. 16

Wanted—First-class all around tinner; good wages, steady job for the right man; must be sober and reliable; references. Address "Chicago," care THE AMERICAN ARTISAN, 69 Dearborn st., Chicago, Ill. 16

Wanted—A good tinner; one who can do slate roofing; a yearly job at good wages. Apply at once to C. C. Henrie, Xenia, O. 16

Tinner Wanted—Who has had experience in plumbing and furnace work; state age and experience. D. L. Baughman, Albion, Ind. 16

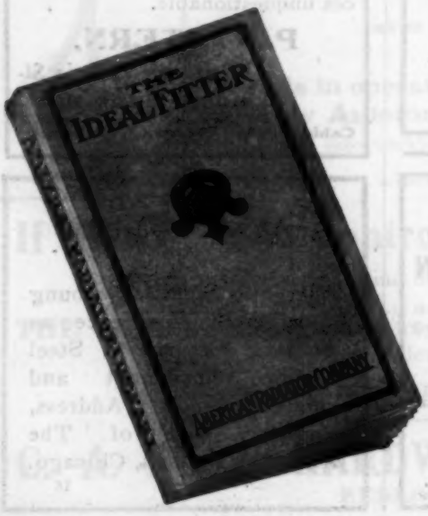
Wanted—An experienced pump and wind mill man; one that can make himself useful in a tinshop. This will be a steady job for the right man. Address Box 69, care THE AMERICAN ARTISAN, 69 Dearborn st., Chicago, Ill. 16

Wanted—Tinners; open shop. Barrett Hdw. Co., Joliet, Ill. 16

Wanted—At once, an experienced tinner for inside and outside work; steady job all year round. Must speak German. State wages wanted. A. W. Puchner, Edgar, Wis. 16

A Full Pocket Book.

"The Ideal Fitter" for 1904 is a very handy pocket list-book of IDEAL Boilers, Tank Heaters, AMERICAN Radiators and Fitting Specialties. Contains also some very helpful related working data.



It is a full book for the pocket of the dealer, the salesman, the estimator, the steamfitter. Rightly handled it helps to fill the wallet. For free distribution to those who need it.

IDEAL Boilers.
AMERICAN Radiators.

AMERICAN RADIATOR COMPANY

LAKE AND DEARBORN STREETS, CHICAGO.

BOSTON: 44 Oliver Street.
NEW YORK: 42-44 East Twentieth Street.
PHILADELPHIA: 622 Arch Street.
WASHINGTON: 1201 G. St. N. W.
BUFFALO: 206 Mutual Life Bldg.
MINNEAPOLIS: 204 Fourth Street, South.
ST. LOUIS: 207-209 North Tenth Street
DENVER: 831 Fi teenth Street.
CINCINNATI: 336 W. Fourth St.
PITTSBURG: 926 Farmers' Bank Bldg.

HELP WANTED.

Wanted—At once, a tinner to do furnace work, pipe work and some plumbing, steady job and good wages. Carpenter & Mather, Stanley, Wis. 15

Wanted—A good tinner who is willing to work and capable of handling all work in his line; must be honest and sober; steady work for the right man; write stating experience and wages wanted. Address "Tinner," care THE AMERICAN ARTISAN, 69 Dearborn st., Chicago, Ill. 16

Wanted—A competent salesman to sell splendid specialty to jobbing trade and retail trade. Jobbing trade preferred. Good seller. C. A. Peck Hardware Co., Berlin, Wis. 16

Wanted—A man to sell a first-class complete line of stoves on commission in Wisconsin and Michigan. Address "H. S. C.," care THE AMERICAN ARTISAN, 69 Dearborn st., Chicago, Ill. 16

Wanted—Tinner; to a first-class tinner a first-class job all the year round; must be reliable and willing to clerk in store when there is no shop work. W. H. Baker, Benton Harbor, Mich. 15

Wanted—Good tinner at once; steady job to right man. C. J. Stark Co., Ortonville, Minn. 15

Wanted—A good all around tinner; must be a good furnace man, and able to do all kinds of job and piece work, galvanized iron work, and make estimates from plans; steady work the year round for such a man. State wages wanted; must be strictly sober. John Stoezle, Murphysboro, Ill. 15

Wanted—A first-class, sober tinner, that can do plumbing and hot water heating; good, steady position for good man. Write stating wages expected. Warner Hdw. Co., Portage, Wis. 15

Wanted—A first-class tinner; one that can do a good job of plumbing, steam or hot water fitting; good, steady job and good wages to a sober mechanic. Warner Hdw. Co., Portage, Wis. 15

Wanted—At once, three or four first-class, sober, industrious tinners and slaters. Steady work and good wages to right parties. Bailey & Keeley, Newark, O. 15

Wanted—At once, a first-class tinner; steady job. Write stating experience and wages wanted. M. J. Holloway, Washington, Kans. 15

Wanted—At once; first-class tinner, who can do hot water heating and plumbing; also clerk in store. Steady position for steady, reliable man. State wages wanted. Address "Steady," care American Artisan. 15

Wanted—A good tinner and furnace man. This will be a steady, all-year job. Boozers need not apply. "Old Business," care The American Artisan, 69 Dearborn St., Chicago, Ill. 15

Wanted—At once, a good, all-around tinsmith for inside and outside work. Address Val Roberts, P. O. Box 305, Lakota, N. D. 15

Wanted—A young man wishing to learn the tinner's trade and a chance to learn plumbing and heating. Address "Helper," care The American Artisan, 69 Dearborn St., Chicago, Ill. 15

CEYLON PLUMBAGO

We are prepared to supply Ceylon plumbago to the American market cheaper than elsewhere. Samples are to be seen at the office of this Journal, as well as at the office of the Merrick Foundry Supply Company, Toronto, Ontario, Canada. 30 shillings per ton freight to New York harbor.

J. WICKRAMANAYAKA & CO., Kalutara, Colombo, Ceylon. 15

SITUATIONS WANTED.

At liberty after May 1st, a practical, all around tinner and sheet metal worker of 18 years' experience, plain cornice, fair on furnace, well up in gasoline stoves. Charge of shop; figure from all plans; handle all classes of trade. Not the only, but one of the best; married and temperate; 32 years of age. Address stating your wage limit, and how long your tinners have been with you to "Tinner," 209 So. 15th st., Murphysboro, Ill. 16

Situation Wanted—By an all around tinner of 20 years' experience; married and of good habits; Wisconsin or Illinois preferred. Address "Wisconsin," care THE AMERICAN ARTISAN, 69 Dearborn st., Chicago, Ill. 16

Position wanted by May 1st—I am a good, all around tinner, strictly sober and reliable. I can do hot water and hot water heating and gas piping. I have also done some plumbing. Address Robert Wilson, Rockland, Mich. 16

Wanted—Position by tinner of 11 years' experience, 35 years' old and married; understands the implement and hardware business; want a steady job. Box 157, Philadelphia, Mo. 16

Position wanted—My age is 41 years; hard work at the trade 20 years; can do tin, slate, cornice, furnace and hot water steam fitting; want a steady job. I am a married man, sober and give references. Address T. J. Dawson, Elwood, Ind., 1302 No. D st. 16

Position Wanted—As traveling salesman, by first-class stove and furnace salesman; good reference and experience. Address "Salesman," care The American Artisan, Chicago, Ill. 15

Wanted—Position as traveling stove salesman; twelve years' exp. on road; two years have been in retail trade; A 1 refs. Address N. 40, care The American Artisan, 69 Dearborn St., Chicago, Ill. 14

Are you going to
World's Fair
St. Louis?

We have something of interest for salesmen in hardware and auxiliary lines visiting World's Fair.

Send us your name and address.

WORLD'S FAIR
Care American Artisan, Chicago.
4t. 14

For Sale

Complete Set Patterns for a Malleable Steel Range with established trade.

Address,
"Malleable" care of
The American Artisan,
69 Dearborn Street,
14 Chicago.

THE ELGIN

We are General Agents for THE ELGIN

Large water capacity; central water tube; circulation may be forced outside can; galvanized iron; painted and grained.

ON LEGS! — Anti back-breaker.

One dealer only in each town. We guarantee your profit. Get the agency.

NORRIS & LORING HARDWARE CO.
Exclusively Wholesale. CEDAR RAPIDS, IOWA.

SPECIAL NOTICES.

SAY

Wouldn't you like to know how to cut your own patterns for Cornice, Finials, Skylights, etc.? Our course in sheet metal pattern drafting will show you how. Send for circular and sample plate. THE HOME INDUSTRIAL SCHOOL, Box 108, Milwaukee, Wis. 14

Stove Manufacturer

in position to take on more work, and solicits correspondence with such end in view. Address, RANCE, General Delivery, Erie, Pa. 5 t. 11

SPECIAL

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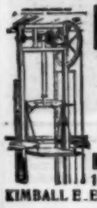

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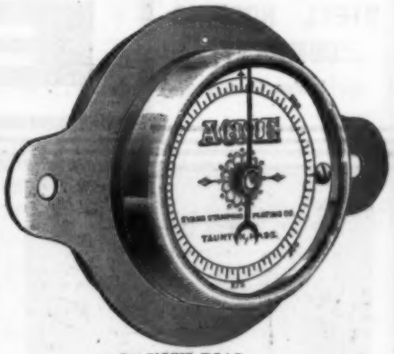

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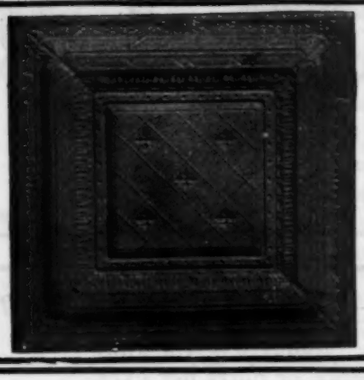

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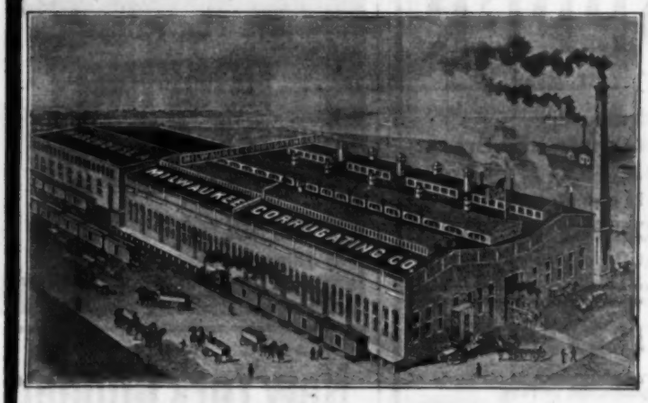

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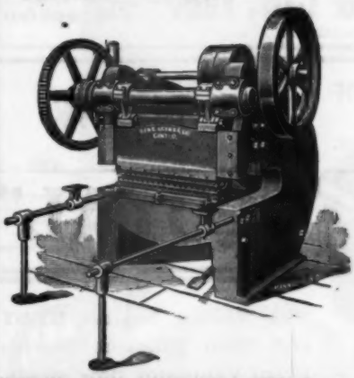

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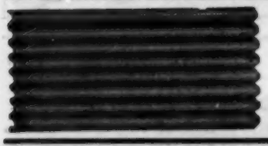

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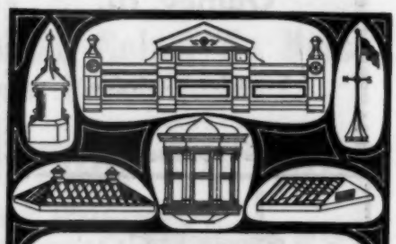

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The American Artisan and Hardware Record
69 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

NAME .....

ADDRESS .....

TOWN .....

STATE .....

The O. K. Steel Brake. Patented March 28, 1901.

BEATS THEM ALL

The O. K. Steel Brake shipped to me two years ago has given the best of satisfaction in every particular. I consider it superior to a cast iron brake.
Henry Heidenreich, Fort Wayne, Ind.

WATCH FOR THE NEXT.

Sold by H. Weiss & Co., 20 Cliff St., New York, N. Y. Janney Semple, Hill & Co., Minneapolis, Minn.; C. Sidney Shepard & Co., St. Louis, Mo., etc.; Illinois Roofing & Supply Co., Chicago, Ill.; New Orleans Roofing & Metal Works, New Orleans, La.; Peden Iron & Steel Co., Houston, Texas; Holbrook, Merrill & Stetson, San Francisco and Los Angeles, Cal.

Will not warp like wood.

DREIS & KRUMP, MFRS., 3214 S. Halsted, St., Chicago.

Let the WHITE LILY Do the Work.

Secure the AGENCY for the

White Lily Washing Machine

It is the Best Seller on the Market.

HIGH SPEED LIGHT RUNNING HANDSOME FINISH and GUARANTEED.

Only one dealer in each town can get them. Write for particulars.

WHITE LILY WASHER CO.
TOLEDO, Ohio, - DAVENPORT, Iowa.

"White Lily Washers wash lily white."

World's Best—Has smooth top; can be left on or off when washing as desired.

The Reliance Washer

has twice the action on the clothes of any other washer manufactured; will wash a tub of clothes in 5 minutes; cannot get out of order; has full open top; handles turn down at the side, will hold more clothes than any other washer and will wash them with less exertion to the operator.

Fawkes Manufacturing Co.
INCORPORATED
MINNEAPOLIS, MINN.

You Can Read This If You Rubber

The "PARAGON"

CYLINDER WASHER

GUARANTEED

not to injure the finest fabric—will wash the heaviest blankets—will wash 8 sheets or their equivalent in one operation—will do twice the volume of work with less labor than any family washing machine now sold.

The following was received from O. F. Braeger & Co., Augusta, Wis.: "Please ship us twelve 'Paragon' washers. The last shipment of three washers was duly received, and proved to be as perfect as they can be made. We have sold about twelve or fifteen different makes of washers, and have never found one that can do the work that the 'Paragon' can do. It is a washer that washes, and one does not have to go over the clothes and rub the dirty places. Please send us a cut for newspaper advertising."

J. M. GAGAN & CO. Manufacturers

CHICAGO, U. S. A.

OVER 100,000

OCEAN WAVE WASHERS

Now in use. We sell only to one dealer in each town.
Write for prices and terms.

Voss Bros. Mfg. Co.

DAVENPORT, IOWA.

DISTRIBUTING POINTS:

Kansas City, Council Bluffs, Sioux City, St. Paul, Milwaukee, St. Louis, Indianapolis, Detroit, Columbus, Elmira, N. Y., Albany, N. Y., Philadelphia, Pa.

Do You Know

That the **O. K. WASHING MACHINE** is the best made, the lightest running and the most attractive washer on the market? *Are you selling it? If not, why?* Every first-class dealer should sell it, because it is made of the best materials, by the best mechanics that can be obtained, and every one sold will sell another.

Write us for Circulars and Prices.

H. F. BRAMMER MFG. CO. Dept. B. DAVENPORT, IOWA

If you are looking for a washer containing force, strength, and master, then we have it in the

B. B. Rotary Roller Gearing Washer

Has case-hardened rollers, is noiseless, made of kiln-dried red cypress lumber, corrugated staves and bottom, has many more excellent features.

WORKS SO EASILY A CHILD CAN OPERATE IT.

If you are wanting a good washer why not write us about ours? One half-dozen makes.

THE BENBOW-BRAMMER MFG. CO.
ST. LOUIS, MO.

MANUFACTURERS

Contemplating establishing plants in the West should take advantage of a location on

THE NORTH-WESTERN LINE
C. & N. W. RY.

Chicago & North-Western Ry.

which reaches the famous

WATER POWERS, COAL FIELDS, IRON ORE RANGES, HARD AND SOFT LUMBER DISTRICTS

of the West and Northwest, and affords the best means of transportation to the markets of the world. For further particulars apply to

MARVIN HUGHITT, Jr., *Freight Traffic Mgr.*, E. D. BRIGHAM, *Gen'l Freight Agent*,
CHICAGO

HOMESEEKERS EXCURSIONS

On FIRST and THIRD TUESDAYS in each Month to **VIRGINIA**

Via NORFOLK & WESTERN RAILWAY

For all information as to Rates and Tickets and for LAND PAMPHLETS and descriptive matter, address

ALLEN HULL, D. P. Agt., Columbus, Ohio

The 1900 WASHER

IS THE EASIEST WASHER TO SELL

As we help the Dealer by advertising in Magazines, and turning inquiries over to him.

This is a full ball-bearing and Automatic Machine. It is the simplest, easiest, and most efficient machine for washing clothes ever invented.

The washing is done while the operator sits by its side, revolving the tub by the handle.

Write For Catalogue.

1900 WASHER COMP'Y,

BINGHAMTON, NEW YORK.

"Boss" Washing Machines

Roller gearing of steel; speed, 19 three-quarter reversals to dasher to only 25 turns of wheel. Large tub and rub-block. Stave leg. Cypress tub.

Illustrations represent the two best sellers. Every dealer should handle these two styles. Your jobber has them in stock. When ordering, mention our brands and insist upon getting the genuine article.

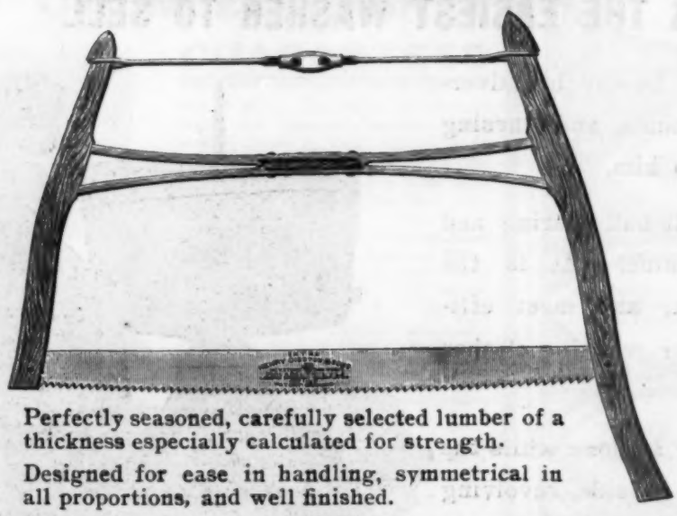
Double rub-board and all connections are detachably connected by means of our patent connections. No screws, bolts or cotter pins to manipulate. Its identity known by peculiar shape, but never Boss unless our label appears on casing.

We make twelve (12) styles of washers, covering every style in demand. We want every dealer to have one of our catalogues, latest issue. Write at once. Mention this paper.

BOSS WASHING MACHINE CO., Cincinnati, O.

DISSTON WOOD SAWS MEET ALL DEMANDS

THE FINEST IN APPEARANCE.



THE STRONGEST AND BEST ON THE MARKET.

FRAMES Perfectly seasoned, carefully selected lumber of a thickness especially calculated for strength.

SHAPES Designed for ease in handling, symmetrical in all proportions, and well finished.

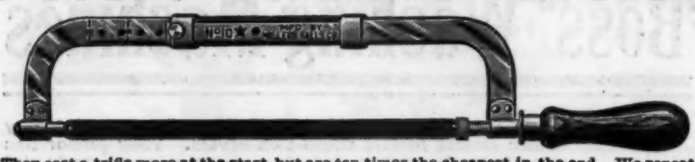
RODS Steel wire, threads square cut, loops strongly riveted, with heavy heads.—Will not strip or pull out.

BLADES Finest quality crucible steel, carefully hardened and tempered, accurately ground, filed and set.

HENRY DISSTON & SONS, INC.

KEYSTONE SAW TOOL STEEL & FILE WORKS. PHILADELPHIA, PA.

STAR HACK SAWS



They cost a trifle more at the start, but are ten times the cheapest in the end. We repeat that it requires something more than steel, teeth and holes to constitute a Hack Saw Blade. You cannot buy a good pocket knife for 10 cents, or the best Hack Saw Blades at price of inferior goods.

Prominent dealers the world over sell ★ Blades | Every genuine blade is stamped with a ★

MILLERS FALLS COMPANY, 28 Warren Street, NEW YORK, N. Y.

Superior Cream Separators

GET ALL THE CREAM

WATER AND MILK ARE NOT MIXED

Farmers like it because it saves time, money and labor.

Dealers like it because the farmers buy it.

40,000 of them in daily use, and they give entire satisfaction.

Our advertisements appear in farm journals, aggregating 3,000,000 circulation and the demand is increasing every day.

Write us for catalogue and dealers price list.

Superior Fence Machine Co.

297 Grand River Avenue, DETROIT, MICH.

If you handle **Whitlock's** line of **Cream Separators** you can meet all competition. None better. Write to-day for interesting information and prices.

J. W. WHITLOCK, Libertyville, Ia.

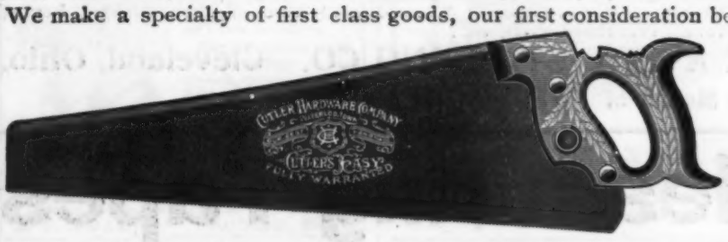
Send us $1.50 only, and we will ship a regular No. 5 Elgin Cream Separator, 12 gallon size, worth $4.10. We want to prove to you that the Elgin Self-Acting Cream Separator is th best. Offer will not be repeated.

Graves Sheet Metal Works, Kansas City, Mo.

"CUTLER'S EASY" TOOLS AND CUTLERY

ARE THE BEST TO BE HAD.

We make a specialty of first class goods, our first consideration being quality, price next, and this idea is not confined to our special brands *"Cutler's Easy," "Waterloo" and "Red Cedar."*



Our stock of Builders' Hardware, Hay Carriers, Bale Ties, Woven Fencing, Alaska Refrigerators, Freezers, Screen Doors, etc. is Complete and we solicit your mail orders.

Cutler Hardware Company, Waterloo, Iowa.

THE KING
Cream Separator

separates all the cream. No cranks to turn, no crocks or pans to wash, no skimming to do, no water mixed with the milk. Highest points secured on butter, several thousand sold last year, all giving good satisfaction, price within the reach of all. Write for terms and prices. Mention this paper.

CHAS. A. VAN PELT,
Bloomington, Ill.

THE LATEST IMPROVED CREAM SEPARATOR.

The best cooling process. The milk tank is detachable.
Our Separator is guaranteed to do the work.

The cheapest and best deep setting Separator on earth.

WRITE FOR PRICES.

SEITHER-CHERRY CO.
KEOKUK, IOWA.

THE CLARK NOVELTY CO.

Rochester, N. Y., U. S. A.
Contractors and Manufacturers of

Metal Specialties

LIGHT MACHINERY,
SPECIAL TOOLS,
AIR COMPRESSORS,
SMALL BRASS PARTS,
PATTERNS, MODELS,
EXPERIMENTAL WORK, ETC.

The Manufacturing of **BRASS FAUCETS** of any size, style or description is one of our Specialties.

THE BOSS CREAM SEPARATOR

Is the most convenient device for Farmers and Dairymen to handle their milk and cream summer or winter. No cheap tin gauges or small faucets used in the construction of this machine. We want one agent in every town to put them out on ten days trial and if they do not sell same may be returned to us at our expense. Send for catalogue showing different styles and sizes.

BLUFFTON CREAM SEPARATOR CO., Bluffton, Ohio.
Geller-Ward & Hasner Hdw. Co., St. Louis, Mo., West. Dist'n.

Jersey Double Cream Separator

MILK AND WATER ARE NOT MIXED

The best and most reasonable priced double separator on the market. Easily cleaned, simple and effective.

We also manufacture the Jersey Single Separator. Write us about them.

Galesburg Cornice Wks., Galesburg, Ill.

"LIGHTNING" AND "BLIZZARD"

FREEZERS

THEY ARE
Well Advertised,
In Demand,
Easily Sold,
Satisfactory in Use,
Of Known Reputation.

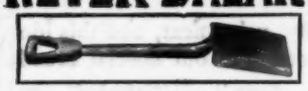
THEY EXCEL IN
Easy Running,
Quick Freezing,
Economy,
Convenience,
Practical Results.

NORTH BROS. MFG. CO.
PHILADELPHIA, PA.

THE ONLY PLAIN-BACK SHOVELS (Pat'd.)

WHICH

"NEVER-BREAK" when the Back Strap wears thin, and, having the Fulcrum near the blade, **"NEVER-BREAK"** the worker's back. They last about twice as long as ordinary plain-back shovels, and do the work more easily by reason of their patented construction. Want to know more about them? Did you get our catalogue of "Never-Break" Wares—Spiders, Griddles, Kettles, Garden Trowels, Post-Hole Diggers, etc.?



THE AVERY STAMPING CO. Cleveland, Ohio.

First and only Makers of "NEVER-BREAK" Goods.

Measuring Tapes

Steel, Metallic, Linen, etc. Our Goods are Recognized as the Best. Tinners' Rules, Magic Pattern Rules, etc. Send for Catalogue and Mention The American Artisan.

Lufkin Rule Co.

SACINAW, MICH.

Stanley Rule and Level Co.

IMPROVED CARPENTERS' TOOLS **Sold by All Hardware Dealers**

NEW BRITAIN, CONN.

ONE MINUTE

Is all the time it takes to bore a post hole in mud, dust, hard or soft soil with

The Driskill Post Hole Auger

This is the only adjustable post hole auger on the market in which the bit or shaft or both can be adjusted in two seconds—a thumb-screw does it.

It is simple in construction, has steel blades and enters any kind of soil without prsssure.

The Driskill Post Hole Auger Co.

Incorporated

Paducah, Kentucky

THE BASKET BANK.

Is a splendidly finished, accurately adjusted MONEY SAVER. On account of its unique locking device customers say it *makes them save* No way to get the money out until $5.00 is saved, or some multiple of $5.00. Holds $40.00 in silver. Register keeps the count. Set them on your show case and they sell themselves. Retail for 75 cts. Ask your jobber or write the Manufacturers.

HOLDS $40.00. **KEYLESS BANK CO. Ltd., 30-36 La Salle St., Chicago, Ill.**

THE CLEVELAND & BUFFALO Transit Company

C&B LINE

CONNECTING **CLEVELAND and BUFFALO** "WHILE YOU SLEEP"

UNPARALLELED NIGHT SERVICE, NEW STEAMERS.

"CITY OF BUFFALO" and "CITY OF ERIE"

Both together being, without doubt, in all respects the finest and fastest that are run in the interest of the traveling public in the United States.

TIME CARD

DAILY INCLUDING SUNDAY

LEAVE		ARRIVE	
Cleveland	8 P.M.	Buffalo	6:30 A.M.
Buffalo	8 "	Cleveland	6:30 A.M.

CENTRAL STANDARD TIME

Orchestra Accompanies Each Steamer

Connections made at Buffalo with trains for all Eastern and Canadian points, at Cleveland for Toledo, Detroit and all points West and Southwest.

Tickets reading over L. S. & M. S. Ry. will be accepted on this Company's Steamers without extra charge.

Special Low Rates Cleveland to Buffalo and Niagara Falls every Saturday Night, also Buffalo to Cleveland.

Ask Ticket Agents for tickets via C. & B. Line Send four cents for illustrated pamphlet.

W. F. HERMAN, G. P. A., Cleveland, Ohio.

Advertising is the root of all money.

Mathematics . . . . . .

We would be pleased to have those who are interested in Mathematics ask any question they may desire, or suggest any studies that they would like to have us take up in this page, aside from the regular course.

4 in. I-Rack Brackets

Makes Wagon Box, Hay, Hog and Wood Racks made from best malleable iron.

Farmers seeing these will have no others.

Over 30 Jobbers ve them, including

Hibbard, Spencer, Bartlett, & Co. Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Sorrell, Shapleigh & Co. St. Louis, Mo.

Price to Dealers, $2.00. Retail, $2.75.

To get them introduced will make 3 Sets for $6.00, F.O.B. at any station east of Missouri River. This offer is good for first order only. 2% 10, 30 net if ordered at once direct from me.

Ask for Circulars and further Information.

J. T. SWAN, Auburn, NEB.

No Dirt. No Dust.

Pleases Everybody. Quick Seller. Good Profit.

Send for Price.

HILL DRYER CO.,
400-410 Park Ave.,
Worcester, Mass., U.S.A.

Designed to fill the demand for

A COMBINED SIFTER DREDGE

Tomato, Fruit and Wine

STRAINER

Provided with a removable agitator, thus permitting the article to be closely nested for shipping.

Manufactured only by

J. L. Clark Hardware Co.
ROCKFORD, ILL.

INDUSTRIES ARE OFFERED LOCATIONS

WITH

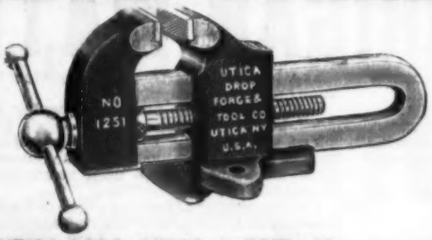
Satisfactory Inducements,
Favorable Freight Rates,
Good Labor Conditions,
Healthful Communities,

ON THE LINES OF

THE ILLINOIS CENTRAL R. R.
AND THE
YAZOO & MISSISSIPPI VALLEY R. R.

For full information and descriptive pamphlet address

J. C. CLAIR, Industrial Commissioner,
1 Park Row, CHICAGO, ILL.



PRACTICAL,
CONVENIENT,
UP-TO-DATE

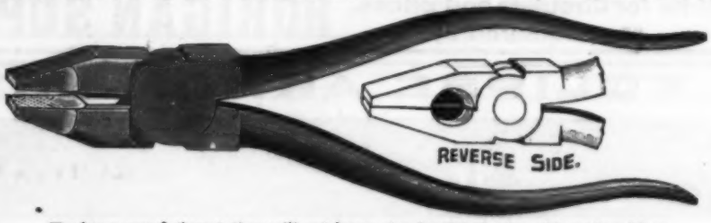
Will do the work of a vice ⅓ larger without straining or injury. Send for the "Green Book" for price and description.

UTICA DROP FORGE & TOOL CO.
Mfrs. of Nippers and Pliers.

SMITH & HEMENWAY CO.
Mfrs. of Cutlery and Hdw. Specialties.

No. 296 Broadway, New York, N. Y.

CRONK'S BUCK SHOT LINEMAN'S PLIER No. 80.



Having a round throat they will cut large size insulated wire without breaking the insulation. They are forged from tool steel and fully warranted.

CRONK & CARRIER MFG. CO., Elmira, N. Y.

8½ inches long. Jaws take from 3/16 to ¾. Cuts bolts for pump rods.

SPECIAL WRENCH FOR PUMP RODS.

Has more uses than any wrench made.

You can't break the jaws off this wrench.

Will Remove
'NEVERSLIP" and "ROWE" CALKS
The Best Wrench Made

Every one buys HAWKEYE WRENCH on sight; all that's necessary to sell it is to show it. It should be in every Hardware Store. Be the FIRST in your town to have it in stock.

SOLD BY ALL JOBBERS.

HAWKEYE WRENCH CO., Mfrs., Marshalltown, Ia

Made in two styles—different size thread for Pump Rods.

SPERRY'S SUGAR KETTLES

Light, smooth, full measure and guaranteed perfect. Made from original patterns. Metal, the right kind in the right place. Ask your jobber for them or write us.

D. R. SPERRY & CO. Hollow-Ware Founders, BATAVIA, ILL.

UNION BRICK HANDLER

A Money Saver.

Full size sample.

Delivered-Express
$3.50

Union Brick Bond Co., PITTSBURG, PA.

..THE HORIGAN WATER WORKS..

The following questions are frequently asked:

What are the Horigan Water Works?

It is a system of furnishing residences, suburban homes, and other buildings with a supply of pure water from your own well or cistern, by Air Compression.

Can you draw water from faucets the same as from City Water Works?

Yes.

Can I have a hot water boiler connected to range, so that I can have plenty of hot water, at all times?

You can.

If water was needed in a three-story building, could it be supplied?

Yes, by a slight increase in the pressure.

If a hydrant for lawn sprinkling was wanted, could it be used?

Yes, by simply putting a connection for same on the main supply pipe.

Can I supply the barn with water for stock, buggy washing, etc.?

Yes, by extending the supply pipe from tank to the barn, and using proper faucets.

Can this apparatus be used successfully in case of fire?

Yes, by simply attaching a hose to the hydrant, or to a faucet over the sink, and starting the pump to maintain a high pressure.

Does it effect insurance rates?

It does in some cases as much as twenty-five per cent.

Is the system complicated?

No, the embodiment of simplicity

Where do you place the tank?

In the cellar or basement.

Does it make any difference as to how far from the house the well or cistern is located?

Practically none, with the exception of the additional cost for piping to the well, if distant.

When windmill power is applied, is there not danger of bursting tank and pipes?

No, this is overcome by the application of a Hydraulic Valve, which is so regulated that the water returns to the well or cistern, after the desired pressure has been obtained.

What pressure carried where this system is in use?

From forty to sixty pounds usually; one hundred pounds can be had if required.

How is the dirt or sediment that accumulates in the tank removed?

By removing the cap at the base of the tank, which is provided with handles, and can easily be removed.

Write for Circulars and prices. Manufactured by HORIGAN SUPPLY CO., ST. JOSEPH, MO.

ECLIPSE AKRON LEVEL,

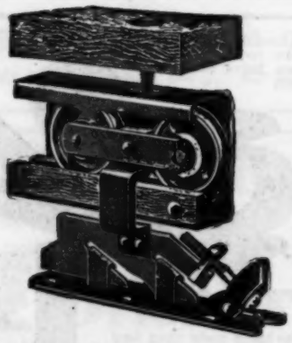
No. 22

Made with new patent adjustable attachment. This is a three-piece level with two plumbs working opposite.

It is made for framers and is always right end up.

THE BAKER, McMILLEN CO., AKRON, O.

RICHARDS AUTO



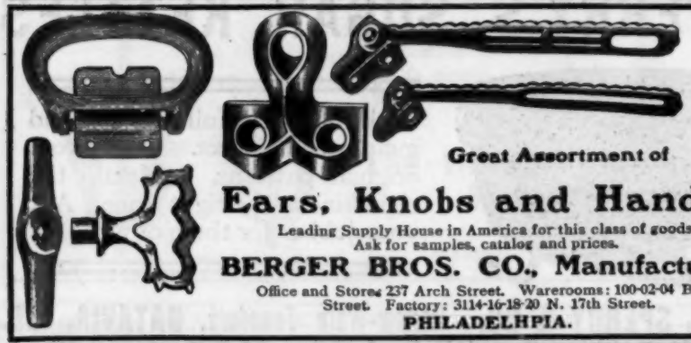
Ball-Bearing, Noiseless, House Door Hanger combines all the best features and is a trade winner.

We make all the leading styles of door hangers for sliding doors. Catalogue free.

THE RICHARDS MANUFACTURING CO.
AURORA, ILL., U. S. A.

DO YOU RECOGNIZE A GOOD THING WHEN YOU SEE IT?

It's now up to you Mr. Dealer, to satisfy your customer by handling the **BULLARD'S IMPROVED CARPET STRETCHER.** Most complete article made for laying Carpets, for both housekeeper and professional Carpet Layer. Easy seller. Quick profit. Enquire of your live jobber. Manufactured by **GEO. S. KNAPP, Bridgeport, Conn., U. S. A.**



Great Assortment of

Ears, Knobs and Handles

Leading Supply House in America for this class of goods. Ask for samples, catalog and prices.

BERGER BROS. CO., Manufacturers

Office and Stores 237 Arch Street. Warerooms: 100-02-04 Bread Street. Factory: 3114-16-18-20 N. 17th Street.
PHILADELHPIA.

E. H. TITCHENER & CO.

STAPLES AND WIRE SHAPES
IN ALL VARIETIES.
Binghamton, N. Y., and 42 No. Peoria St., Chicago.

Stay-In Flue Stoppers

Brass Finished, Nicely Decorated.

The best flue stop made. Sold with a positive guarantee to be absolutely soot proof. It cannot be jarred or blown from the flue hole.

You cannot afford to be without a flue stop that will stand the above guarantee.

Stuber & Kuck, Peoria, Ill.

Manufacturers of Pieced Tinware and all styles Flour Sifters.

J. W. Chandler,
Lily Lake, Ill., writes:

"Please take my ad out of your paper for a timer. I have received answers from Brooklyn to California. I think I ought to be able to pick out one."

The Highest Type of American Cutlery

IS EXEMPLIFIED IN

QUEEN SHEARS

FARWELL, OZMUN, KIRK & CO.,

Wholesale Distributers. ST. PAUL, MINN.

COPPER CABLE

LIGHTNING RODS
also a complete line of
Weather Vanes and Lightning Rod Fixtures

MAHER & SON, - - - - Preston, Iowa

FOR

SYRUP SUPPLIES

Cans, Pails, Spouts, Etc.

WRITE TO

THE J. M. & L. A. OSBORN CO.

CLEVELAND, OHIO

YOU ARE IN BUSINESS TO SAVE MONEY—THEN WHY NOT BUY YOUR

WASH BOILERS

Direct from the manufacturer? I manufacture all kinds and sizes, all with pieced covers.

Try a sample order and convince yourself. I have no salesmen and other expensive help to increase the cost, therefore I can undersell all others in this line. Write for prices.

P. MOSHIEK, 421 So. Halsted St., Chicago, Ill.

FOX SHAVING SETS

Every article in this set is guaranteed. The razor is a Fox, which is known all over as the best made. It retails for $3.

FOX CUTLERY CO.
DUBUQUE, IOWA

THE POPULAR LINE

with three elegant trains each way between Chicago and

LaFayette, Ind.
Indianapolis, Ind.
CINCINNATI, OHIO.
Louisville, Ky.

and all points in the

SOUTH AND SOUTHEAST

is the

BIG FOUR ROUTE

Buffet Parlor Cars, or Dining Cars on day trains and Pullman's finest Compartment and Standard Sleepers on night trains. All trains run solid, Chicago to Cincinnati. For reservations, etc., call on or address

J. C. TUCKER,
Gen'l Northern Agent,
238 S. Clark St., CHICAGO, ILL.

BUY THE BEST CAN
For the Money.

Iron Clad Cans, all styles and sizes, Elgin, Iowa and other patterns; also all kinds of Creamery and Dairy Supplies at bottom prices.

Write for prices and discounts and in what quantity.

EMIL TAEGE
Arlington Heights, Ill.
Box 28.

100 TINNERS' PATTERNS

COMPLETE FOR

$1.00

Sent Postpaid on Receipt of Price.

DANIEL STERN,
69 Dearborn St. CHICAGO.

ENTERPRISE
Meat and Food Choppers
TINNED

45 Sizes and Styles for Hand, Steam and Electric Power

No. 2 $1.50
No. 4 2.00
No. 6 3.00

No. 5 $2.00
No. 10 3.00
No. 20 6.00

No. 12 chops 3 pounds per minute $2.75
No. 022 chops 4 pounds per minute $4.50
No. 032 chops 5 pounds per minute $6.00

No. 41 $55 00

No. 66 $250.00

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The Enterprise Manufacturing Company of Pa.

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MODEL 1903,
22 Caliber Repeater.

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